DOCUMENT RESUME

ED 456 252 CE 082 232

TITLE	Research to Reality: Putting VET Research To Work. Proceedings of the Australian Vocational Education and Training Research Association (AVETRA) Conference (4th, Adelaide, Australia, March 28-30, 2001).
INSTITUTION	Australian Vocational Education and Training Research Association, Alexandria.
PUB DATE	2001-03-00
NOTE	925p.; For earlier proceedings, see ED 452 418-420. For individual monographs, see CE 082 233-311. Some papers were not published in the proceedings and are represented by abstracts only.
AVAILABLE FROM	AVETRA Conference Proceedings, Locked Bag 70, Alexandria, New South Wales 1435, Australia ($39.95 Australian). For full text: http://www.avetra.org.au/confarchives.htm.
PUB TYPE	Collected Works - Proceedings (021)
EDRS PRICE	MF06/PC37 Plus Postage.
DESCRIPTORS	Action Research; *Adoption (Ideas); Adult Education; Case Studies; Classroom Techniques; Competency Based Education; Computer Uses in Education; Delivery Systems; Distance Education; Dropout Research; Education Work Relationship; Educational Administration; Educational Change; Educational Opportunities; Educational Policy; *Educational Practices; *Educational Research; Educational Technology; Employed Women; Employment Patterns; Equal Education; Foreign Countries; Human Resources; Information Technology; Job Placement; Labor Force Development; Models; National Programs; Outcomes of Education; Partnerships in Education; Policy Formation; Postsecondary Education; Research and Development; *Research Utilization; School Business Relationship; Secondary Education; Staff Development; Statistical Analysis; Student Evaluation; Teacher Attitudes; Teacher Education; Teaching Methods; *Theory Practice Relationship; Training; Transfer of Training; Universities; *Vocational Education; Womens Education; Work Experience Programs; Workplace Literacy
IDENTIFIERS	*Australia; China; Germany; Great Britain; Japan; Learning Organizations; New Zealand; TAFE (Australia); United States

ABSTRACT

This document contains 95 papers and summaries of 5 poster sessions from an Australian conference on putting vocational education and training (VET) research to work. The following are among the areas covered in the papers: factors affecting VET graduates' employability over time; technical and further education (TAFE) institutes as models of learning organizations; school noncompleters' outcomes in VET; increasing disabled students' participation in VET; VET management; bringing research and policy development together; innovative and flexible approaches to training package implementation; online support for VET clients; work-based learning; self-determined learning in the workplace; quality control and employability; using statistical software to interpret educational research; moving from andragogy to heutagogy in VET; drivers of learning cultures within organizations; VET practices in foreign countries; action research as action

Reproductions supplied by EDRS are the best that can be made
from the original document.

learning; challenges facing TAFE teachers; urban disadvantage and provider equity strategies; factors preventing uptake of apprenticeships and traineeships among secondary school adolescents; literacy and first-line management; performance level assessment; linkages between adult continuing education and VET; using training indicators to improve VET planning; student experiences of generic competency learning; managing the transformation to an e-learning organization; learning from small enterprise structured work placements; and using research to inform business and strategic decisions. Many papers include substantial bibliographies. (MN)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 456 252

Research to Reality:
Putting VET Research To Work
Proceedings of the Australian Vocational Education and Training Research Association (AVETRA) Conference
(4th; Adelaide, Australia,
March 28-30, 2001)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
- ☐ This document has been reproduced as received from the person or organization originating it.
- ☐ Minor changes have been made to improve reproduction quality.

- Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

K. Whittingham

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

CE 082 232

BEST COPY AVAILABLE

Home
About AVETRA
Conference
Publications
AVETRA News
Links
Contact Us

AVETRA

AUSTRALIAN VOCATIONAL
EDUCATION AND TRAINING
RESEARCH ASSOCIATION

[2001 Conference Program] [Scholarships]
[Presenters and Papers] [Registration Form 2001]
[Workshops] [Conference Archives]

2001 AVETRA CONFERENCE

The fourth Australian VET Research Association Conference

Research to Reality: Putting VET Research to Work

28-30 March 2001
Hilton Adelaide
Victoria Square
Adelaide, South Australia

▶ View Conference Program

▶ Overview

The Fourth Australian VET Research Association (AVETRA) Conference is being held on 28-30 March 2001 at the Hilton Hotel, Victoria Square, 233 Victoria Square, Adelaide, right in the heart of the city. The conference is in the same week as the UNEVOC Conference (26-28 March) which will attract many international visitors, especially from Pacific countries. It is anticipated that many will stay on for this AVETRA Conference, and joint activities are being planned for the Wednesday between the two VET conferences. It promises to be a very exciting and stimulating week, in lovely Adelaide weather at that time of the year.

▶ Conference themes and background

The conference will provide an opportunity to hear about the latest research being conducted in the VET sector at universities, by national and state and territory agencies and, most importantly, by VET providers and schools themselves.

It will give the sector the chance to support and recognise those involved in VET sector research in all its forms. These people are building the sector's capacity to reflect critically on its policies and practices and improve all that the sector does. It is about taking research and making it live, breath and be useful.

The conference aims to help people to build networks and to be informative, challenging and practical.

Themes for the conference include:

- translating research into practice
- practitioners as researchers
- research partnerships
- lifelong learning, continuous and recurrent VET
- research for quality improvement
- research for innovation
- VET online, new industries, science and technology
- identifying new research directions

Keynote speakers

An exciting program of keynote speakers is being organised, including the Australian National Training Authority's CEO, Moira Scollay, Andy Smith for the National Centre for Vocational Education Research and Peter Kirby as conference rapporteur.

VET practitioner workshops

Day one of the conference (optional) is set aside for practical activities and involves a range of workshops of interest to VET practitioners and new and experienced researchers alike. workshops

▶ Papers and posters

Papers and posters on the above themes are now being sought from VET teachers and trainers, public and private, as well as those involved in VET-in-schools; university and VET researchers; teacher educators; Industry Training Advisory Body and enterprise training personnel; union representatives; consultants; students; and anyone interested in VET research and practice.

Papers and posters on topics associated with VET and VET research are welcome and presentations and workshops can be accommodated in the conference program.

View presentation topics and speakers

▶ Submission of abstracts

Abstracts (of approximately 200 words) of proposed papers and posters must be received by 27 October 2000. The abstract heading must include the title of the paper or poster, followed by the name(s) and affiliation(s) of the author(s) and the name and address of the person who will be presenting the paper or displaying the poster at the conference. At the foot of the abstract should be listed the conference theme for which the paper/poster is most relevant, as well as up to three key words that best describe the paper's/poster's content.

The presenting author will be advised in writing of acceptance of the abstract and will be provided with an author's kit for formatting the paper or details on displaying the poster.

Abstracts are to be sent (via email or disk) to:

Dr Roger Harris
Centre for Research in Education, Equity and Work
University of South Australia
Holbrooks Road
Underdale, SA 5032

Email: roger.harris@unisa.edu.au

There will be an option for papers to be refereed (to meet DETYA E1 requirements). Please indicate when you submit your abstract whether you wish to take up this option. Further information will be sent on acceptance of abstracts, together with the author's kit.

▶ Poster sessions and displays

Why not consider presenting a poster rather than a paper? This format often appeals to different people, and in different ways than a conventional paper presentation.

Only 20 poster spots will be available at the conference. One session between 4.00 and 4.45pm on Thursday 29 March 2001 will be set aside for delegates to attend the poster session, but if you also make yourself available at morning and afternoon teas and over lunch, you will be amazed at the range of contacts you will make.

Registrations for posters close on 31 January 2001. Posters will not be refereed.

For some examples of poster sessions and ideas, refer to http://www.spotlight.sa.edu.au/tas/form.htm

Submission date for papers to be refereed will be 31 January 2001.
Submission date for papers not requiring to be refereed will be 29 March 2001.
Display date for posters will be the morning of 29 March 2001 (and to remain in place through 30 March 2001).

AVETRA

AUSTRALIAN VOCATIONAL
EDUCATION AND TRAINING
RESEARCH ASSOCIATION

2001 Conference Presenters and Papers; Posters

The full papers are stored online in Adobe Portable Document format (PDF). You will need the Adobe Acrobat reader software to view them. Download the Adobe Acrobat reader if you do not have it installed on your computer.

Get Adobe Acrobat Reader

Program times - Thursday **Program times - Friday** **Back to Conference Program**

Dr Tilahun Mengesha Afrassa
Factors influencing the employability of VET graduates over time: a PLS analysis
Abstract Paper

David Atchoarena
From Research to Reality: an international perspective (international panel)
Paper

Leoni Arandez, Les Comley & Sue Holden
Do TAFE institutes walk the talk - are they models of learning organisations?
Abstract Paper

Eunice N. Askov & Mary Simpson
Researching Distance Education: Penn State's Online Adult Education M. Ed. Degree on the World Campus
Abstract Paper

James Athanasou
Young people in transition: Factors influencing the educational-vocational pathways of Australian school-leavers
Abstract Paper

Katrina Ball & Stephen Lamb
School non-completers: Outcomes in vocational education and training
Abstract Paper

Kate Barnett & Craig Harrison
A model to increase the participation in VET by students with a disability
Abstract Paper

Llandis Barratt-Pugh
Searching for extended identity: the problematised role of managing people development, as illuminated by the Frontline Management Initiative
Abstract Paper

Susan Baxter & Nicola Yelland
Bringing research & policy development together - The DETYA Research Fellowship Scheme
Abstract

Stephen Billett

Workplace affordances and individual engagement at work
Abstract Paper

Kaaren Blom, David Meyers *et al*
Innovative and flexible approaches to training package implementation
Abstract Paper

Andrew Boorman
How institutions respond to training packages
Abstract Paper

Gerald Burke
Trends in educational expenditure
Abstract Paper

Merilyn Childs
Keeping death out of the curriculum: workbased learning through scenario methodology in emergency services
Abstract

Sarojni Choy, Cathy McNickle & Berwyn Clayton
Online support for VET clients: expectations and experiences
Abstract

Berwyn Clayton, Robin Booth & Sue Roy
Maximising confidence in assessment decision making - springboard to quality in assessment
Abstract Paper

Andrew Clements & Geoff Speers
Development of an industry training strategy for the abattoir industry in NSW
Abstract Paper

Jim Cumming & Christine Owen
Reforming schools through innovative teaching
Abstract Paper

Lester Davis & Stewart Hase
Self-determined learning in the workplace
Abstract Paper

Thomas Deissinger
Quality control and employability: Are the parameters of VET in Germany's dual system facing severe challenges?
Abstract Paper

Cathy Down
Learning for transfer - a framework for action
Abstract Paper

Cathy Down & Jane Stewart
Implementation of training packages at RMIT
Abstract Paper

George Eraclides & Vivien Archia
Teachers' difficulties in teaching students with disabilities
Abstract Paper

Elizabeth Evans
Interpreting educational research using statistical software
Abstract Paper

Ian Falk
Colloquium - Leadership in VET (four NREC projects - over two sessions)
Abstract

Jane Figgis
Colloquium - What, if anything, is a training/learning culture? (four NREC projects - over two sessions)
Abstract

Bruce Gilbertson
Opening Pandoras' Box (KEYNOTE)
Abstract Paper

Malcolm Goff & Jennifer Nevard
PEEL, education and TAFE learning model: a regional WA response to collocation
Abstract Paper

Steve Goldsmith
Curriculum development and discursive practices: Building a training culture around dual diagnosis
Abstract Paper

Lauri Grace
Adult learners and barriers to success in VET flexible delivery programs
Abstract Paper

Stewart Hase & Chris Kenyon
Moving from andragogy to heutagogy in vocational education
Abstract Paper

John Henry, John Mitchell & Susan Young
Workbased learning in the contemporary Australian VET sector: A re-appraisal
Abstract Paper

John Henry, Lyn Wakefield & Peter Smith
Flexible delivery as a 'whole organisation' operation: What does this mean in practice?
Abstract Paper

Anne Herbert
Action learning as professional development for vocational educators
Abstract

John Hunter & Geoff Sanderson
Training Packages: the scientific management of education
Abstract Paper

Meredith Isbell
The position of women in production in the process of manufacturing industry in SA: implications for VET
Abstract Paper

Susan Johns, Sue Kilpatrick, Bill Mulford & Ian Falk
Thinking outside the box: A remove VET-schools program challenges traditional boundaries
Abstract Paper

Robyn Johnson & Geof Hawke
Drivers of learning cultures within organisations: Findings from case studies
Abstract Paper

Anne Jones
It's a judgment call: The significance of 'rugged individualism' and 'assessor communities' in making assessment judgements

Abstract Paper

Jack Keating
Qualifications frameworks in Britain and Australia - a comparative note
Abstract

Peter Kell
Issues in VET research: current crisis and potential possibilities?
Abstract Paper

Lola Krogh
Action research as action learning as action research as action learning .... at multiple levels in adult education
Abstract Paper

Michaela Kronemann
TAFE Teachers: Facing the challenge
Abstract Paper

Megan Lugg
Helping school-based VET teachers make meaning of their work
Abstract

Yufent Liu
The development and reform of vocational education in China
Abstract Paper

John Martino & Sue Holden
Increasing opportunities for apprenticeships and traineeships in Melbourne's western region
Abstract Paper

Claire McBeath
Evaluating teacher training for industry trainers
Abstract Paper

John McIntyre & Mez Egg
Urban disadvantage and provider equity strategies
Abstract Paper

Heather McKay
Embracing post-modernism in classroom practice
Abstract Paper

Cathy McNickle & Rhonda Daniell
Online student services: an overview of provision
Abstract Paper

Josie Misko & Edward Slack
Destinations of school-leavers who took advantage of structured work placements as part of their VET course
Abstract Paper

John Mitchell
The challenges in developing VET competencies in e-commerce
Abstract Paper

John Mitchell, Susan Young & Sarah Wood
Internal and external factors affecting the impact on an organisation of a national staff development program
Abstract Paper

Alan Montague

What are the mitigating conditions that prevent the uptake of apprenticeships and traineeships among secondary school adolescents in Victoria?
Abstract Paper

Gavin Moodie
Translating practice into research: how we have come to define and structure 'vocational' education
Abstract Paper

Dianne Mulcahy
Unravelling aspects of the Frontline Management Initiative
Abstract Paper

Oanh Phan
The effectiveness of enabling courses in assisting individuals to progress to other training programs.
Abstract Paper

Heather Pitt
Degrees go to TAFE: Transition experiences in a multi-sectoral institution
Abstract

Karen Plane
Community capacity building in regional VET - the place for small business in developing a lifelong learning community. Disparate workplace learning cultures or similar challenges for VET?
Abstract Paper

Zoe Reid
Literacy and first line management
Abstract Paper

Kerry Renwick
Learning about learning online
Abstract Paper

Ann Rice
The world of work of a TAFE institute manager
Abstract Paper

Ian Roos, Chris Selby Smith & Liz Wright
Misfit and match: The Frontline Management Initiative in the community services and health industry
Abstract Paper

Santi Ruiz, Richard Earl, Julie Ruiz & Pam van den Broeke
IT Training Package and the workplace context - how?
Abstract Paper

Kay Sanderson
Performance level assessment - developing quality and consistency through research partnerships
Abstract Paper

John Saunders
ACE-VET linkages: Provider, student and industry views
Abstract Paper

Stephan Saunders
Using training indicators to improve VET planning
Abstract Paper

Lesley Scanlon
Student experiences of generic competency learning: A case of practitioner research
Abstract Paper

Kaye Schofield, Anne Walsh, Bernice Melville & Deborah Bennett
Professional practices online: renovating past practices or building new ones?
Abstract Paper

Jerry Schwab
VET in school for indigenous students: Success through 'cultural fit'
Abstract Paper

Chris Selby Smith
The impact of research on decision-making by practitioners
Abstract Paper

Jan Shepherd
Supporting women returning to work - A European perspective
Abstract Paper

Sue Shore
Racialised discourse and adult learning principles: some thoughts about 'difference' in VET
Abstract Paper

Michele Simons & Roger Harris
Different realities: staff development in public and private providers of VET
Abstract Paper

Janet Simpson
Managing the transformation to an e-learning organisation
Abstract Paper

Linda Smart & Ben Fennessy
Technology - an empowering tool for learning
Abstract Paper

Andy Smith
Never mind the width, feel the quality: improving VET research in Australia
Paper

Erica Smith, Annette Green & Ros Brennan
A foot in both camps: School students and workplaces
Abstract Paper

Heather Smith
Training the TAFE sessional workforce: a new dynamic in professional development.
Abstract Paper

Peter Smith, Lyn Wakefield & Ian Robertson
Testing the feasibility of strategies to enhance flexible delivery in the workplace
Abstract Paper

Lucy Stockdale & Erefilly Potter
Development of online evaluation for improving customer service at Kangan Batman TAFE
Abstract

Lucy Stockdale & Heather Symons
Workshop: Survey methods user group (SMUG)
Abstract

Ruth Trenerry
Learning work, learning to work: Literacy, language and numeracy as vehicles for learning in training packages
Abstract Paper

Peter Turner & James Mulraney
Learning from small enterprise structured work placement

Abstract Paper

Judith Uren
Increasing successful outcomes for TAFE students
Abstract Paper

Christine Velde
Perceptions of vocational education and learning in Japan and Australia: A comparative study
Abstract

Regine Wagner & Merilyn Childs
Dilemmas in workbased learning
Abstract

Anne Walsh
Problems to problematics - a journey
Abstract Paper

Louise Watson
Who pays for lifelong learning?
Abstract Paper

Leesa Wheelahan
Research, policy & practice: how do they fit together? A case study on pathways and articulation at VUT
Abstract Paper

Karen Whittingham, Tilda Lupton & Odwyn Jones
Discussion Group: AVETRA Science & Technology Applied Research in TAFE (START) network
Abstract

Karen Whittingham, Fran Ferrier & Cliff Trood
The missing link? The VET sector and Australia's national innovation system
Abstract

Paul Williams
New Zealand's review of industry training policy: A small step forward or the start of something new?
Abstract

Graeme Young
Using research to inform business and strategic decisions
Abstract Paper

Susan Young & John Mitchell
National change management and staff development needs in VET
Abstract

POSTERS

Jenny Cherry
The role of the workplace assessor
Poster

Centre for Research and Learning in Regional Australia (University of Tasmania)
Call for an integrated model for VET quality
Poster

Marilyn Kell
Falling through the gaps
Poster

Barbara Rohde

The romance and reality of IT for young women
Poster

Cliff Trood
The diffusion of policy in contexts of practice: Informal networks and innovative practice
Poster

Program times - Thursday **Program times - Friday** **Back to Conference Program**

Student level factors that influence the employability of TAFE graduates over time: a partial least-squares analysis

Tilahun Mengesha Afrassa

Office of Vocational Education and Training (OVET), Adelaide

The Australian vocational education and training (VET) courses are designed to meet the skills of industry and employability of students. While many students are unemployed before commencing their study, the nature of technical and further education (TAFE) is such that most students are employed and/or seek part time employment during their period of study. Nevertheless, after graduation from TAFE some will be in jobs while others will not - and some will have moved to better jobs.

In 1999, AC Nielsen Research collected Student Outcomes Survey (SOS) data from 4673 South Australian 1998 TAFE graduates on behalf of the National Centre for Vocational Education Research (NCVER), who manage a program of satisfaction and destination surveys. In addition, in 2000, NCS Australasia also collected SOS data from 2819 South Australian 1999 TAFE graduates on behalf of NCVER. Among these completing students, some were employed (part time or full time) whereas others were unemployed. Some of the students were employed before starting the course while some were also employed during the course, and the remaining graduates were unemployed.

Thus, the main purpose of the present study is to identify whether or not the student level factors that influence the employability of 1998 VET graduates are similar to that of the 1999 VET graduates. The data employed for the study are the 1999 and 2000 South Australian SOS data mentioned above. In this paper, partial least square path analysis methods are employed to examine student level factors that influence employability of students after graduation from TAFE over time using the partial least squares path analysis (PLSPATH) 3.01 (Sellin 1990) computer program. Conclusions are drawn about the student level factors that influence the employability level of students.

Factors influencing employability of students

The main purposes of TAFE courses are to prepare people for employment. Thus, in general, students after completing their TAFE courses are employed in the areas in which they were trained. However, completing a course or graduating from TAFE does not guarantee employment by itself. Previous research findings have indicated that many different factors influence the employability of TAFE graduates. One of the factors that is believed to influence employment is the qualification obtained. The understanding is that students will be employed if they graduate from TAFE. However, previous research findings do not support this assumption. Harris (1996) has studied the probability of employment within the youth labour market. The findings show that school leavers who completed Year 12 are much more likely to be employed than those who go on to obtain a trades qualification. In addition, Wooden (1999) contends that multivariate studies of employment status reveals that on balance, trades qualifications do not confer much in the way of an employment advantage.

The other factor that influences TAFE graduates' employability is employment before the training. Previous research findings show that students who were unemployed before attending the TAFE course were less likely to be employed after completing their course. In their survey study of students who completed Bachelor Degree and Associate Diploma courses in 1995 from Victorian Universities and TAFE institutes, Teese and his colleagues (1998, p 16) have suggested that, '… it is frequently ineffective attempting to correct unemployment or to enter employment from outside the labour force by training in the TAFE sector'.

Kinnaird (1998, p 8) has reported that employment outcomes before the course for people who did information technology courses in 1996 in New South Wales (NSW) TAFE and who were unemployed in the six months before starting the course were very unfavourably placed. He found that the proportion unemployed after completing the course was double the NSW TAFE average for people with this background (ie 35% vs 18%).

Previous research findings have also shown that persons of Aboriginal descent were less likely to be employed when compared with those of non-Aboriginal descent (Castle and Hagan 1984; Cousins and Nieuwenhuysen 1983; Miller 1989; Ross 1987). However, after controlling for the effects of education, Harris (1996) found that those of Aboriginal descent did not appear to be disadvantaged.

Harris (1996) has also reported that disabled persons were significantly and similarly disadvantaged in the workplace, when compared with non-disabled persons.

Furthermore, Fan and Antoine (1999) have found a significant difference in employment destination between graduates with English-speaking and non-English speaking backgrounds. These authors reported that graduates from English-speaking backgrounds were more likely to be employed either full time or part time than their colleagues with non-English speaking backgrounds. This finding was consistent with those of Jones (1992), McAllister (1986) and Tiggemann and Winefield (1989). The study indicated that even if all the graduates held Australian tertiary qualifications, language background still played a role in gaining employment.

Data collection

In this study, two data sets collected at different occasions are used for analysis. The first data set includes 4673 students who attended a TAFE institute in South Australia and who completed a Certificate, Advanced Certificate, Associate Diploma, Diploma, Advanced Diploma or a Bachelors Degree of at least 200 hours or one semester in duration in 1998. The second data set includes 2819 students who attended a TAFE institute in South Australia and who completed at least one of the above-mentioned qualifications in 1999 and had an Australian address as their usual address. The data sets were collected in 1999 and 2000 respectively.

The AC Nielsen Research (1999) report states that for the 1999 data set, the survey involved sending a questionnaire to all 1998 graduates. The NCS Australasia (2000) report states that for the 2000 data sets, the survey involved sending a questionnaire to a stratified, randomly selected sample of 1999 TAFE graduates. On both occasions the survey was employed to measure VET students' employment, further study destinations, and opinions of the training undertaken (AC Nielsen Research 1999; NCS Australasia 2000).

The present study is a secondary analysis using part of these data to identify and compare the student level factors that influence the employability of the 1998 and 1999 South Australian TAFE graduates. This analysis goes beyond the initial objectives of those who collected the data.

Method

From the findings of previous research, a model of student level factors influencing employability of South Australian TAFE graduates was developed. The PLSPATH procedure (Sellin 1990) was chosen as an appropriate multivariate technique to examine the hypothesised model.

Significance test

In the final structure of the model, it was decided that when the value of the direct path was less than twice its standard error, the path should be removed (Falk and Miller 1992). This involves the assumption that the path coefficient is actually zero when it is smaller than twice its standard error. In addition, it was recommended that a direct path with $ß<0.07$ should be removed, because such values would show an insignificant effect in the estimation of a relationship between two latent variables (LVs). Hence, the larger the ß value the larger the effect in the path model. This estimation process was repeated successively until all nonsignificant paths had been removed.

The other criterion used to assess the strength of the final path model was the maximum variance (R^2) of the outcome variable *Employment after training (EMPL_A)*. The value of R^2 gives the maximum variance explained of a construct when the preceding predictor variables are included in the analysis. Thus, the larger R^2, the more of the variance is explained.

The modification, trimming or deletion of variables and paths in the path model involves the removing of all paths not contributing to the LVs. With the use of the trimming procedure, some latent variables were removed from further analysis.

Results of the PLSPATH analysis

The first part of this paper discusses the results obtained when the hypothesised model was tested by employing PLSPATH in the analysis of data from the 2000 South Australian SOS Study. The second part of the paper compares the student level factors that influence the employability of South Australian TAFE graduates on different occasions.

Table 1: SOS 2000 - inner model jackknife results

```
==================================================================
=
Variable       JknMean  JknStd     Direct   Indirect  Total    Corr
R²
------------------------------------------------------------------
-
EMPL_A
.29
      GENDER     -        -          -       -.02      -.02     -.07
      STUDAGE    -        -          -        .07       .07      .009
      RACE      .07      .02        .07       .05       .12      .14
      C_BIRTH    -        -          -       -.09      -.09     -.11
      LANGHOME   -        -          -        .03       .03      .13
      DISABLED                                .07       .07      .13
      HSSQ_COM   -        -          -        .01       .01      .06
      QUAL_B     -        -          -        .06       .06      .04
      STATUS    .10      .02        .10      -.07       .03     -.0007
      STUDY_B    -        -          -       -.002     -.001    -.03
      EMPL_B    .23      .02        .23       .17       .40      .38
      REASON    .10      .03        .10       .03       .14      .19
      EMPL_ONC  .36      .01        .36      -.003      .35      .48
      QUAL_C    .02      .01        .02        -        .02      .13
```

JknMean = Jackknife mean
JknSE = Jackknife standard error

Table 1 shows the inner model results for the PLSPATH analysis for the South Australian 2000 SOS data set. Fifteen LVs were hypothesised to influence the outcome variable *employment status at 26 May 2000.*

EMPL_A (employment status at 26 May 2000)

The employment status of VET graduates at 26 May 2000 was hypothesised to be influenced by 15 LVs. The result of the PLS analysis reveals that five of the 15 factors influence *Employment status at 26 May 2000* both directly and indirectly, while six other factors influenced *EMPL_A* indirectly (see Table 1). One factor, *QUAL_C,* shows a direct effect, while the *LOCATION* factor does not show any effect on the outcome variable. The six factors that have a direct influence on *EMPL_A* are: *RACE, STATUS, EMPL_B, REASON, EMPL_ONC* and *QUAL_C.*

Direct effects

The seven factors that have a direct influence on employment status after graduation are discussed in greater detail as follows.

RACE (Aboriginality)

RACE indicates a total effect of 0.12 on *employment after graduation*. The results of the analysis reveal that students of non-Aboriginal descent are more likely to be employed after graduation than students of Aboriginal descent.

STATUS (best description by student of status when starting the course)

This is a LV that influences *employability* of students directly (0.10) and indirectly (-0.07). The total effect (0.03) indicates that students who are still enrolled at secondary schools or who start the course within 12 months after leaving secondary school are more likely to be employed after they graduate from TAFE than students who begin more than 12 months after leaving school.

EMPL_B (employment before the training)

This LV influences *employment status after training* directly (0.23) and also has a sizeable indirect effect (0.17). It is the strongest (0.40) variable that has both direct and indirect effect on *employment status after TAFE graduation* (see Table 1). The evidence shows that students who are employed before they start their TAFE training are likely to be employed after graduation.

This finding is consistent with previous research findings. In their survey study of students who have completed bachelor degrees and associate diploma courses in 1995 from Victorian Universities and TAFE institutes, Teese et al (1998) have reported that TAFE graduates who are employed before their training have a much greater likelihood of being employed after completion of their course than their colleagues who were unemployed before the course.

Furthermore, Kinnaird (1998) has reported that employment outcomes for people who took information technology courses in 1996 in NSW TAFE and who were unemployed in the six months before starting the course were particularly unfavourable. Kinnaird has also reported that the proportion unemployed after completing the course was double the NSW TAFE average for people with this background (ie 35% vs 18%).

REASON (reason for doing the course)

This LV influences *employment after graduation* both directly (0.10) and indirectly (0.03). The total effect is 0.14; it is the third strongest variable that has both direct and indirect effects on *employment status after graduation* (see Table 1). The evidence shows that students who express more vocational reasons for studying the TAFE course are more likely to be employed after graduation than students who express non-vocational reasons.

EMPL_ONC (*employment status during the final semester of the course)*

This LV influences the employment status of TAFE graduates both directly (0.36) and indirectly (-0.003). The total effect is 0.35. It is the second strongest variable next to EMPL_B to influence *employment status after graduation*. This result indicates that TAFE graduates who are employed during their training time are more likely to be employed after graduation than graduates who are unemployed during their course of study. The effect of *EMP_B* and *EMPL_ONC* on *EMPL_A* reveals that students in order to get a job should have some kind of work experience before the course and/or during their training period.

QUAL_C (level of qualification received by the students for the course)

This variable indicates that students who receive the highest qualification, such as a diploma or associate diploma from the course, are likely to be employed after they graduate from TAFE than students who receive the lowest qualifications such as Certificate I. However, it is important to observe that this effect is a weak effect with only a direct influence on *employment status after graduation*, and is only included in the analysis in order to test for and examine its direct effects. This implies that the variable is not greatly helping students to be employed after graduation. This finding is consistent with previous studies. Brooks and Volker (1985) show that trades-qualified males do not have employment probabilities that are higher than males who left school at the age of 16, 17 or 18 years. Furthermore, these authors have reported that trades-qualified females actually do worse than their early school leaver colleagues. Inglis and Stromback (1986) have reported similar findings. Furthermore, Harris (1996) has reported that school leavers who completed year 12 are much more likely to be employed than those who go on to obtain a trade qualification. Recently, Wooden (1999, p 10) has reported that people who received trades qualifications do not confer much in the way of an employment advantage.

Therefore, this finding indicates that TAFE qualifications without previous work experience are not likely to be a key factor in entering employment.

Indirect effects

The seven factors that have indirect influences on employment status after graduation are discussed as follows.

GENDER (sex of the student)

GENDER shows an indirect (-0.02) effect on *employment after graduation* operating through *REASON* and *QUAL_C*. This result indicates that male students are more likely to be employed than female students (see Table 1).

STUDAGE (age of the student)

STUDAGE also shows an indirect (0.07) effect on *employment after graduation* operating through *EMPL_ONC* and *QUAL_C*. This result indicates that older students are more likely to be employed than younger students (see Table 1).

DISABLED (disability)

This is a LV that influences *employability* of students only indirectly (0.07). This variable indicates that non-disabled students are more likely to be employed after they graduate from TAFE than students with some kind of disability.

C_BIRTH (country of birth)

This LV influences the employment status of TAFE graduates indirectly (-0.09). This indirect effect indicates that Australian-born TAFE graduates are likely to be employed after graduation when compared with non-Australian born graduates. This finding is consistent with previous research findings reported by Brooks and Volker (1983) and Inglis and Stromback (1986). The authors found that country of birth had significance influence on employment outcomes. In the present study, country of birth does not show a direct effect, however, the indirect effect is stronger than the direct effect of a qualification from the course.

LANGHOME (language spoken in the home)

Language spoken in the home influences employability of students after graduation. The indirect effect is 0.03. This effect indicates that graduates who speak English in their homes are more likely to be employed after graduation than those who speak a language other than English. This finding is consistent with those reported by Fan and Antoine (1999), Inglis and Stromback (1986), Jones (1992), McAllister (1986) and

Tiggemann and Winefield (1989). Fan and Antoine have reported that even if all the graduates hold Australian tertiary qualifications, language background still plays a role in gaining employment. In the present study, language does not show a direct effect, however, the indirect effect is stronger than the direct effect of a qualification from the course.

HSSQ_COM (highest secondary school completed before the course)

HSSQ_COM (0.01) influences the outcome variable only indirectly through *QUAL_C*. The result indicates that students who have completed year 12 before the course are more likely to be employed than students who do not complete year 12 (see Table 1).

QUAL_B (level of educational qualification before the course)

QUAL_B also shows an indirect (0.06) effect on *employment after graduation*, operating through *EMPL_B* and *QUAL_C*. The result indicates that students who received educational qualifications before the course are more likely to be employed than students who did not receive any educational qualifications before the course (see Table 1).

STUDY_B (study during six months before starting the course)

STUDY_B also shows an indirect (-0.002) effect on *employment after graduation*, operating through *QUAL_C*. The result indicates that students who did not study in the six months before starting the course are more likely to be employed than students who did (see Table 1).

The only variable that does not show either direct or indirect effects is the place where students are living; that is, whether the student *lives in a capital city or other area (LOCATION)*.

Discussion

Among the 15 LVs hypothesised to influence the employability of the South Australian 1999 TAFE graduates, only six variables showed a direct influence on the outcome variable. The variables that showed a direct influence on *EMPL_A* are *RACE, STATUS, EMPL_B, REASON, EMPL_ONC* and *QUAL_C*. One other factor, namely *LOCATION*, did not show either direct or indirect influence on the outcome variable, whereas the remaining seven variables showed an indirect influence on the outcome variable.

Comparisons between different occasions

Table 2 presents the direct and indirect effects of LVs identified as student level factors that influence the employability of TAFE graduates on the different occasions. The first column shows the variables, while the remaining columns show the direct, indirect and total effects of each variable on employability on each occasion. The direct effects of each variable on the outcome measure *employability* were considered to indicate the relative strengths of the factors that influence *employability* on the different occasions.

Gender

Gender was considered to be a factor that would influence *employability* of the 1998 and 1999 South Australian TAFE graduates data sets. However, *GENDER* showed weak indirect effects for both data sets. The effect of *GENDER* on the outcome variable for both data sets showed that male students are more likely to be employed after graduation than their female colleagues. However, it is important to observe that the influence of *GENDER* is decreasing from -.06 (1998) to -.02 (1999).

Student age

Student age was considered a factor that would influence *employability* of the 1998 and 1999 South Australian TAFE graduates data sets. However, the variable showed indirect effects for both data sets. The indirect effect of *age* on the outcome variable for both data sets showed that older graduates are more likely to be employed after graduation than their younger colleagues.

Race

Whether the graduate is of Aboriginal descent or not was considered a factor that would influence *employability* of the 1998 and 1999 South Australian TAFE graduates data sets. This variable showed both a direct and indirect effect for the 1999 TAFE graduates. The total effect was small, however; the same variable showed only an insignificant indirect effect for the 1998 TAFE graduates' data set. The effect of *RACE* on the outcome variable for both data sets showed that students of non-Aboriginal descent are more likely to be employed after graduation than their colleagues of Aboriginal descent. However, it is important to observe that the influence of *RACE* is increasing, from an insignificant indirect effect in 1998 to direct and indirect effects in 1999. This change from indirect to both direct and indirect effects warrants further investigation.

Country of birth

The country where a graduate was born had both direct and indirect effects for the 1998 TAFE graduates. The total effect was small, however. The same variable showed an indirect effect for the 1999 TAFE graduates' data set. The effect of this on the outcome variable for both data sets showed that Australian-born graduates are more likely to be employed after graduation than non Australian-born graduates. However, it is important to observe that the influence of *country of birth* has declined from a direct effect in 1998 to an indirect effect in 1999. While this change from a direct to an indirect effect shows that the importance of the variable as a factor is declining, the difference between the total effects of both data sets is almost the same (only .02). Therefore, the variable warrants further investigation.

Table 2: Comparisons of student factors that influence employability of TAFE graduates on different occasions

Variable	Effects of the 1999 data			Effects of the 2000 data		
Name	Direct	Indirect	Total	Direct	Indirect	Total
Gender	-	-.06	-.06	-	-.02	-.02
Student age	-	.08	.08	-	.07	.07
Aboriginal descent	-	.006	.006	.07	.05	.12
Country of birth	-.08	-.03	-.11	-	-.09	-.09
Language spoken in the home	-	.03	.03		.03	.03
Disability	.09	.04	.13	-	.07	.07
Location	-	-.02	-.02	-	-	-
High school completion	-	-.05	-.05	-	.01	.01
Qualification before the course	-	.08	.08	-	.06	.06
Status before the course	.07	-.05	.02	.10	-.07	.03
Study before the course	-	-	-	-	-.002	-.002
Employment status before the course	.14	.21	.35	.23	.17	.40
Reason for doing the course	.11	.04	.14	.10	.03	.14
Employment status during the course	.42	-	.42	.36	-.003	.35
Qualification received from the course	.02	-	.02	.02	-	.02

Language spoken in the home

The language spoken in the home by the graduate was considered to be a factor that would influence *employability* of the 1998 and 1999 South Australian TAFE graduates. This variable shows only indirect effects for both data sets. These indirect effects on the outcome variable for both sets show that students who speak English in the home are more likely to be employed after graduation than students who speak a language other than English.

Disability

Whether the graduate has some kind of disability or not was considered to be a factor that would influence *employability* of the 1998 and 1999 South Australian TAFE graduate data sets. However, this variable shows direct and indirect effects for 1998 graduates and only an indirect effect for 1999 graduates. The effect of *disability* on the outcome variable for both data sets shows that non-disabled students are more likely to be employed after graduation than their disabled colleagues.

Location

Whether the graduate is living in a capital city or not was considered a factor influencing *employability* of the 1998 and 1999 South Australian TAFE graduates. This variable shows an insignificant indirect effect only for the 1998 data set. However, the variable did not show any effect for the 1999 TAFE graduates. This indicates that there is no difference between graduates from capital cities and those from other areas to be employed after graduation. Therefore, the area where the graduate lives should no longer be considered a factor that influences the employability of the South Australian TAFE graduates.

Highest secondary school completion

Although whether the student completed Year 12 before starting the course or not was predicted to influence *employability*, the variable shows an insignificant indirect effect for the 1998 and 1999 data sets.

The level of qualifications received before the course

The level of qualifications received by the student before starting the course had an indirect effect for both data sets. The effect of *level of qualifications received before the course* on the outcome variable for both data sets showed that students who received qualifications (such as bachelor degree or higher, advanced diploma or diploma), are more likely to be employed after graduation than their colleagues without any qualifications before the course.

Best description by student of status when starting the course

The description by student about his/her status when starting the course had both direct and indirect effects on the outcome variable *employability* for both data sets. The total effects indicate that students who began while still enrolled at secondary school or within 12 months after leaving are more likely to be employed after they graduate from TAFE than students who enrolled more than 12 months after leaving secondary school.

Study during six months before starting the course.

Whether the student was studying six months before starting the course had a trivial indirect (-0.002) effect on the outcome variable *employability* for the 1999 data set only.

Employment status before starting the course

The employment status of the student before starting the course had both direct and indirect effects on the outcome variable *employability* for both data sets. This indicates that students who are employed before starting the course are more likely to be employed after they graduate from TAFE than students who were unemployed.

Reason for doing the course

The student's reason for doing the course had both direct and indirect effects on the outcome variable *employability* for both sets. Thus, students who did the course for vocational reasons are more likely to be employed after they graduate from TAFE than students who did the course for non-vocational reasons.

Employment status during the course

The employment status of the student during the course showed only a direct effect for the 1998 data set, but had both direct and indirect effects on the outcome variable *employability* for the 1999 set. However, the indirect effect for the 2000 data set was trivial. The total effects for both data sets indicate that students who are employed during the course are more likely to be employed after they graduate from TAFE than students who are unemployed during the course.

Qualification received from the course

The level of qualification received from the course was considered a factor that would influence *employability* of the 1998 and 1999 South Australian TAFE graduate data sets. The variable shows only direct effects for the data sets. However, the values for these direct effects were trivial. The total effects indicate that students who have received a higher level of qualification from the course are more likely to be employed after they graduate from TAFE than students who have received a lower level.

Similarities and differences between the 1998 and 1999 data sets

Among the 15 LVs hypothesised to influence the *employability of South Australian TAFE graduates*, five factors influenced the outcome variable in both 1998 and 1999. These variables were: *best description by student of status when starting the course; employment status before the course; reason for doing the course; employment status during the course;* and *qualifications received from the course* (see Table 2). Consequently, the findings of this investigation indicate that students who are still enrolled at secondary schools or who begin the course within 12 months of leaving secondary school, students who are employed before starting the course, students who provide a vocational reason for doing the course, students who are employed during the course and graduates who received higher qualifications from the course are likely to be employed after graduation.

The differences between the 1998 and 1999 TAFE graduates were in *Aboriginality, Disability, Country of birth, Location* and *Study before the course*. For the 1998 TAFE graduates, *RACE* showed a trivial indirect effect on the outcome variable, but showed a marginal direct effect for the 1999 graduates. *Disability* showed a direct and indirect effect for the 1998 graduates, however its contribution was reduced to a direct effect for the 1999 set. *Country of birth* showed both direct and indirect effects and was considered a factor for the 1998 TAFE graduate data set, however its contribution was reduced to an indirect effect for the 1999 data set. In addition, *LOCATION* showed an indirect effect in the 1998 data set, but did not show any effect for the 1999 TAFE graduates. Furthermore, *Study six months before starting the course* showed a trivial indirect effect in the 1999 graduates data set, but did not show any effect for the 1998 graduates.

Conclusions and recommendations

The results of the path analyses for the two different data sets (1998 and 1999 TAFE graduates) have revealed that students who begin the course while still enrolled at secondary school or within 12 months after leaving school, students who are employed before starting the course, graduates who provide vocational reasons for doing the course, students who are employed during the course and graduates who received higher qualifications from the course are likely to be employed after they graduate from TAFE.

Employment status before and during the training is a strong factor influencing employment status. While the weakest effect for both groups is qualification from the course, the higher qualification is better for employment. The qualifications received from TAFE produce the best employment results when supported by work experience during and/or before training. Further study is necessary to identify the factors that influence employment status of TAFE graduates over time. In addition, further work is required to study these processes by the investigation of subgroups undertaking specific courses, to examine whether similar processes are operating in similar ways for these different subgroups.

References

AC Nielsen Research (2000) 1999 Student Outcomes Survey South Australia State Report, December 1999. National Centre for Vocational Education Research.

Brooks C and Volker P (1985) Labour market success and failure: an analysis of the factors leading to the workforce destinations of the Australian population. In P Volker (ed) The structure and duration of unemployment in Australia: proceedings of a conference. BLMR monograph series no 6. Canberra: Australian Government Publishing Service.

Brooks C and Volker P (1983) Labour market success and failure: an analysis of the factors leading to the workforce destinations of the Australian population. In P Volker (ed) Bureau of Labour Market Research Conference Paper, no 38. Canberra.

Castle R G and Hagan J S (1984) Aboriginal unemployment in Rural New South Wales 1883-1982. In R Castle and J Mangan (eds) Unemployment in the eighties. Melbourne: Longman Chesire.

Cousins D and Nieuwenhuysen J (1983) Aboriginal unemployment in Australia: its extent and policies to reduce it. Monograph no 71. Melbourne: Committee for Economic Development of Australia.

Falk F R and Miller N B (1992) A primer for soft modeling. Akron, Ohio: The University of Akron Press.

Fan C and Antoine E (1999) Predictors of employment destinations for university graduates. Australian Journal of Career Development, vol 8, no 2, pp 17-24.

Harris M N (1996) Modelling the probability of youth unemployment. Economic Record, vol 72, no 217, pp 118-129.

Inglis P A and Stromback T (1986) Migrants unemployment: the determinants of employment success. Economic Record, vol 62, no 178, pp 310-324.

Jones F L (1992) Sex and ethnicity in the Australian labour market: the immigrant experience. Canberra: Australian Bureau of Statistics.

Kinnaird B (1998) Report to the Communications ITAB (New South Wales): VET data analysis. New South Wales: National Communications Industry Training Advisory Body.

McAllister I (1986) A comparison of status of attainment of Australian and overseas born young adults. Research paper, series no 4. Melbourne: Australian Institute of Multicultural Affairs.

Miller P W (1989) The structure of Aboriginal and Non-Aboriginal youth unemployment. Australian Economic Papers, vol 28, no 52.

NCS Australasia (2000) 2000 Students Outcomes Survey. South Australia State Report, November. National Centre for Vocational Education Research.

Ross R T (1987) The labour market position of Aboriginal people in New South Wales. Working Papers in Economics, no 99. Sydney: Department of Economics, University of Sydney.

Sellin N (1990) PLSPATH Version 3.01 Program Manual. Hamburg, West Germany.

Teese R, Ryan C, Polesel J and Davies M (1998) TAFE and university in Victoria: comparative employment, skills and job satisfaction outcomes. The University of Melbourne.

Tiggemann M and Winefield A H (1989) Prediction of employment, unemployment and further study among school-leavers. Journal of Occupational Psychology, vol 62, pp 213-221.

Wooden M (1999) Impediments to the employment of young people: review of research. Australian National Training Authority.

Contact details

Tilahun Mengesha Afrassa
Office of Vocational Education and Training,
VET Strategy Branch
Adelaide, South Australia
Email: Afrassa.Tilahun@saugov.sa.gov.au

From research to reality: an international perspective (international panel)

David Atchoarena

International Institute for Educational Planning/UNESCO, Paris

Preliminary remarks

This paper will be focused on developing countries and limited to policy issues (as opposed to learning and teaching issues).

TVET seem to re-emerge as one of the hot topics in the policy debate on educational development. This increasing attention being paid to TVET was clearly expressed two years ago at the UNESCO International Congress that took place in Seoul. This focus is also clear when looking at the policy agenda of countries like Australia or at recent policy documents issued by OECD and the European Union.

To a large extent, this renewed interest for TVET is motivated by the necessity to address new economic challenges. In this context, three factors are playing a key role:

- Increasing recognition of the role of knowledge in economic development (in particular in relation to the new growth theories);
- The context of globalisation, and the need to maintain, through skill development, international competitiveness;
- The deep transformation of labour markets associated with globalisation, including casualisation of work and a continuing expansion of the informal economy in many developing countries.

In this overall framework, TVET policies in developing countries are confronted with:

- The post-Dakar agenda (World Forum on Education for All, 2000) and the renewed priority for basic education (including secondary education);
- Poor conditions of TVET systems:
  - neglect
  - expansion
  - poor performance (in terms of efficiency, effectiveness, relevance).

The TVET reform agenda and the contribution of research

In this context, what are the key issues in TVET reform and what has been the contribution of research to the policy process? Depending on specific national contexts, the reform agenda could be defined around three broad directions:

- Redefining TVET around broader competencies;
- The need to expand/delay TVET provision at the post-compulsory level;
- The need to conceive school-based education and training as the first step of lifelong learning.

Research is very much dependent on funding; therefore, TVET research on developing countries is closely associated with the international research agenda.

It is worth recalling that in the 90s, TVET in developing countries did not attract much interest ('lost decade for TVET'). Two main reasons explain this phenomenon:

1. *At the national level,* following the 1990 Jomtien Conference on Education for All, the priority for basic education was often interpreted as a priority for primary education;

2. *At the international level,* the 1991 World Bank policy paper on TVET focused primarily on private sector provision through:

    - private providers (the ultimate goal being the establishment of a market for training);
    - work-based training.

As a result, TVET attracted little attention and less resources.

For developing countries, recent changes in the policy agenda can be related to three main challenges:

- *Economic challenge*: meeting the needs of globalisation and preventing marginalisation (particularly for sub-Saharan Africa);

- *Educational challenge*: countries need to accommodate the expansion of primary education that took place in the 90s, which means increasing the capacity but also the diversity of education and training pathways;

- *Political challenge*: rising youth unemployment and the need to provide responses to the growing number of out-of-school, out-of-work youth to maintain social cohesion.

Consequently, developing countries have put increasing pressure on the international community to support TVET. In this context, without being exhaustive, the emerging policy and research agenda includes three key areas:

- The transition from school to work, including the need to make TVET institutions more responsive to the needs of the labour market. This concern motivates the global interest for apprenticeship schemes and work experience programmes.

- Reforming the institutional framework to finance and govern TVET - a key principle being partnership with industry. The establishment of National Training Boards and of National Training Funds represents an important trend in this effort.

- Promoting competency-based training and establishing national qualification frameworks is also a significant trend in an increasing number of developing countries in Africa, Asia and Latin America.

In the light of such developments, a number of issues require additional investigations.

The penetration of market-oriented paradigms in education shaped the reform process along similar lines:

- Shifting the policy focus from inputs to outputs (through new financing and certification mechanisms);

- Involving social partners, primarily employers, in the governance of the TVET systems;

- Granting more autonomy to TVET institutions;

- Promoting private providers and company-based training.

Research can be seen in two directions:

- Assessing the results of on-going policies, in particular with regard to:
    - National Training Funds - are they efficient? Do they lead to a decrease of the cost of training? Are they effective? Are the new financing mechanisms sustainable?
    - Competency-based training - these reforms raise a number of implementation issues. What does it take to implement a competency-based system? How much does it cost? Similarly, not much is known on its impact on:
        - the quality of training
        - the responsiveness/relevance of training
        - the promotion of lifelong learning.

- Documenting new developments or relatively neglected issues such as:
    - the rise of private provision:
        - profile of private providers
        - efficiency, effectiveness of private training
        - role of the state, comparative analysis of regulatory tools.

- Training provision for disadvantaged groups; access to learning opportunities remain unequally available. How do we ensure that the large number of primary and secondary school leavers access skills? What is the role of NGOs? What links should be established between training policy and poverty reduction frameworks?

Translating research into action

Putting TVET into action faces a number of obstacles:

- Lack of research capacities in developing countries
- Research is linked to donor agencies (who finance it)
    - advantage: impact on policy directions
    - limits: lack of autonomy (choice of the topics to be searched is often dictated by outsiders).

Two directions need to be further pursued to strengthen the links between research and policy, namely:

- Training: TVET planners, managers, policy-makers; training closely related to the policy cycle (formulation, implementation, evaluation); 'just in time' training.
- Dissemination and access to research results. In this respect, the newly-established agreement between NCVER and UNESCO to make the NCVER database available to an international audience, through a UNESCO website, will constitute a very useful step towards increasing the access to TVET research findings.

Contact details

David Atchoarena
International Institute for Educational Planning
7-9 Rue Eugene Delacroix, 75116 Paris - FRANCE
ph: 33 1 45 03 77 49   fax: 33 1 40 72 83 66
Email: d.atchoarena@iiep.unesco.org
Website: http://www.unesco.org/iiep

Are TAFE organisations learning organisations? Do they 'walk the talk'?

Les Comley, Leoni Arandez, Sue Holden and Ewa Kuriata

Victoria University

The Centre for Curriculum Innovation and Development is located within the Technical and Further Education (TAFE) Division of Victoria University. It is involved in the development of Training Packages, learning resources and professional development for TAFE staff both internally and externally. As an outcome of its local and national activities, the Centre has identified the need and observed some movement towards change within the TAFE workforce and institutes.

TAFE institutes and teachers are key components of the strategy to grow individuals, organisations, communities and states into learning sites embodying the principles of lifelong learning. However, there is a perception that these institutes and their staff are experiencing self-doubt and confusion about their role in the evolving learning environment. This paper seeks to position TAFE institutes on the basis of responses from TAFE staff within six such organisations with regard to their own development as learning organisations.

Introduction

> As a 'cradle to grave' process, Lifelong Learning empowers individuals to acquire and confidently apply, all the knowledge, values, skills and understanding that they require throughout their lifetime.
>
> In a similar way, Lifelong Learning can assist communities to build civic participation, caring citizenship and economic resilience, while for organisations Lifelong Learning can foster greater innovation, competitiveness and productivity.
>
> "Lifelong Learning for all" is also required by the Government as a key strategy for ensuring the State's successful participation in the global knowledge economy.
>
> … to create a cohesive, dynamic and inclusive 'State of Learning' [or the learning state]. (Ralph 2000)

Global competition and technology have dramatically changed the workplace. In an effort to create and sustain competitive advantage it is imperative for organisations to focus on learning as a lifelong challenge. TAFE organisations are constantly being challenged by the dynamic environment in which they exist and an essential characteristic required for survival is the capacity to model characteristics of lifelong learning and learning organisations, which will ultimately underpin the development of the learning state. TAFE organisation representatives, most notably the teaching staff, must demonstrate these characteristics.

This paper adopts the perspective that to create a learning state, various requirements must be implemented through educational organisations and their teaching staff. The paper focuses upon one segment of the education industry - TAFE organisations - and questions whether they are up to the task. Are these organisations staffed by lifelong learners who participate in organisations that are, or are becoming, model learning organisations - do they in fact walk the talk?

Literature review

Organisations are undergoing fundamental shifts in the ways they conduct business (McGill and Slocum 1995). Today's organisations are knowledge-based. They are designed to process ideas, experiences and information. In many industries, the ability to learn and change faster than the competition is the key to survival. The pace of change will continue to accelerate. The learning organisation is a revolutionary way to think about strategy, structure and service. To bring about such a dramatic change in behaviour, every available organisational resource must be focused upon learning.

A learning organisation has a *culture and value set that promotes learning.* A learning culture is one in which there is clear and consistent openness to experience, encouragement of responsible risk taking in pursuit of continuous improvement and willingness to acknowledge failures and learn from them. A learning culture is not captured in a slogan-based mission statement crafted by a consulting firm.

A broad definition of learning facilitates knowledge transfer by encouraging discussion of the development aspects of every possible kind of experience. 'What did you learn?' is a question that encourages sharing, even from failed job assignments, seminars and customer visits. Casting a wide net as to *what* is learning has the further advantage of broadening the issue of *who* is developed.

In a learning organisation, everyone is involved in learning.

Kirnane (1999) proposed that the challenge for organisations is to ensure that they do not suffer from too much data and too little knowledge. The barriers of the industrial era hierarchies need to be replaced by processes that enable systematic knowledge sharing. Organisations need to evolve into units in which there is a free flow of ideas and more use is made of their external information sources.

Fisher and White (2000) have defined organisational learning as being:

> … a reflective process, played out by members at all levels of the organisation, that involves the collection of information from both the external and internal environments. This information is filtered through a collective sense-making process, which results in shared interpretations that can be used to instigate actions resulting in enduring changes to the organisation's behaviour and theories-in-use.

Organisations are social entities (Fisher and White 2000) in which individuals interrelate and create a 'collective consciousness', and organisational learning is:

> … emergent from interpersonal and/or behavioural connections and modelled in terms of the organisational connections that constitute a

> learning network rather than as information transfer from one individual to another. (Glynn et al 1994, p 56)

In his 1999 publication, Kearns has argued that VET needs to broaden its scope in 'response to the anticipated changes of the 21st century' (1999, p vii). Lifelong learning needs to be the ruling paradigm. Such an approach is agreed internationally with the focus of a knowledge-based society being dependent upon its human capital, which in other contexts may be referred to as intellectual capital (Ferrier and Whitingham 2000).

Advocating the application of a broad definition, Kearns (1999) argues that lifelong learning is an evolving concept, viewed as both an educational and social practice. The UK Green Paper (1998, in Kearns 1999) argues that:

> We have no choice but to prepare for this new age [Lifelong Learning] in which the key to success will be the continuous education and development of the human mind and imagination.

Such an outcome would require society to be characterised by '... different qualities from those required in the past industrial and service economies' (Kearns 1999, p 1). Such a society would be a 'developed learning society in which everyone should be able, motivated, and actively encouraged to learn throughout life' (Kearns 1999, p 1). VET is required to develop a humanist approach in which people, particularly its people, and their individual development, are the key focus for the way ahead.

Kearns (1999, p 8) concludes that VET as a system '... still exhibits signs and symptoms of a system in transition...' . Moreover:

> [T]he orientation of reform has been towards implementing a training paradigm whose roots, though modified, lie in an industrial society – while the learning aspects of reform have been relatively neglected (1999, p 8).

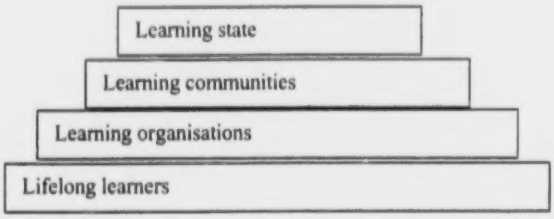
VET can contribute to the development of organisations by becoming a point of convergence for the '... three pillars of a learning society' (Kearns 1999, p 14), formal education and training, the enterprise sector and the community sector. 'The more linkages and connections that can be forged between these sectors, the richer will be the outcomes for stakeholders' (Kearns 1999, p 14). To undertake this role, VET needs to be aware of the role of the workplace in forging and leading change. Furthermore it is in the workplace that a need for continuous learning, employability, competitiveness and the enhancement of human capital are most evident. VET needs to respond by addressing the needs of the workplace, including those of the largest employer group: small business.

To achieve these goals, however, the workplace needs to encourage, support and reward learning. An environment supportive of people and teams, a strategic sense and vision and broad definition of roles foster a learning culture. Kearns (1999) determines that a learning organisation embodies these features.

So the challenge for Australia, individual communities, their constituent organisations and individuals laid out by these writers is that no one part can succeed without demonstrating the characteristics of the next lowest level, similar to

Maslow's hierarchy of needs. The 'hierarchy' referred to here is illustrated by the following diagram - the Hierarchy of the learning state:

Figure 1: Hierarchy of the learning state



This hierarchy emphasises the notion of interconnectedness, or - as some writers may describe the relationship - convergence. It assumes that without lifelong learners, you cannot have a learning organisation. Without learning organisations you cannot have learning communities which must exist for there to be a learning state.

The policy impetus of the education industry, which includes TAFE organisations, is expected to provide the necessary drive to support the evolution of the Learning Society. 'The new TAFE is thus constructed as an organisation with norms, values and modes of conduct that are largely indistinguishable from those of private organisations' (Chappell 1999, p 10). Given this requirement and the rationale underpinning the Hierarchy of the Learning Society, TAFE organisations need to be learning organisations, and as learning organisations, they need to be predominantly populated by lifelong learners.

The question this research activity sought to answer is:

Are TAFE organisations learning organisations?

In answering this question, the following hypotheses were developed:

- TAFE staff are lifelong learners
- TAFE organisations are learning organisations
- TAFE divisions of dual sector universities more strongly demonstrate the characteristics of a learning organisation than do single-sector TAFE institutes
- Rural/regional TAFE institutes more strongly demonstrate the characteristics of a learning organisation than Metropolitan TAFE institutes.

Methodology

The following data collection methods were used to answer the research questions:

Literature review - As part of our methodology, a literature review was undertaken aimed at soliciting various views, frameworks and experience in relation to learning organisations and lifelong learning. From the literature, a theoretical framework was established around which the questionnaire was developed.

Questionnaire - A questionnaire was the primary data collection tool used to identify quantitative data and a limited amount of qualitative information from respondents. The use of ranked evaluative statements and tick-box responses enabled respondents to complete the questionnaire easily and to ensure a consistent response format.

The characteristics of a learning organisation and lifelong learners identified by Kearns (1999) were used as the basis of the questionnaire's construction. These characteristics are shown below.

Kearns' profile (1999, p 29) of the learning organisation includes the:

- provision of learning opportunities for staff
- building of a shared vision
- demonstration of openness to change and adaptability
- adopting of a systems perspective
- valuing and support of team learning
- commitment to the development of human capital.

Kearns (1999, p 13) profiled the lifelong learner as having:

- an inquiring mind and curiosity
- 'helicopter' vision
- a repertoire of learning skills
- a commitment to personal mastery and ongoing development
- interpersonal skills
- information literacy.

Sample

The questionnaires were sent to dual-sector universities (2), metropolitan (2) and rural/regional (2) TAFE institutes. The participating organisations were:

Dual-sector universities:

- Northern Territory University (Darwin, Northern Territory)
- Swinburne University of Technology (Melbourne, Victoria)

Metropolitan TAFE institutes:

- Central Metropolitan College of TAFE (Perth, Western Australia)
- Kangan Batman Institute of TAFE (Melbourne, Victoria)

Rural/regional TAFE institutes:

- Mt Isa Institute of TAFE (Mt Isa, Queensland)
- Sunraysia Institute of TAFE (Mildura, Victoria)

The dual-sector universities provided data from their respective TAFE sectors.

The following sample sought responses from each of the participating organisations:

- the most senior TAFE manager (or another manager from the senior group)*
- five general staff (non-teaching)
- 15 teaching staff (covering a cross section of the organisation's programs).

*Note: this group was treated as non-teaching as its members rarely deliver teaching/programs to students

The ratio of teaching to non-teaching staff sought for the sample may not be representative of the employment patterns within TAFE organisations. For example, in Victorian TAFE institutes '… the general pattern is that most Institutes have approximately 40% of their EFT workforce as non-teachers and 60% as teachers' (PETE 2000, p 48). However, a premise of this paper contends that TAFE teachers will most directly influence students to embrace or ignore the principles of lifelong learning that underpin the development of learning organisations. Therefore, the study sought to determine the responses of teaching staff more so than those of non-teaching staff. The sample sought to receive responses in the ratio of 71% teaching staff to 29% non-teaching.

Questionnaire response

Seventy-nine responses were received from the six participating organisations. The occupational category source of these responses is shown in Table 1.

Table 1: Respondents by occupational category

Respondent group	Number	Percentage
General staff	19	24.1%
Teacher/teaching support	52	65.8%
Senior manager	8	10.1%
Total	79	100.0%

Summary of findings

The results to the research questions are shown in Table 2 below.

Table 2: Research question results

Question	Result
Are TAFE staff lifelong learners?	Yes
Are TAFE organisations learning organisations?	Yes
Do TAFE divisions of dual sector universities more strongly demonstrate the characteristics of a learning organisation than do single sector TAFE institutes?	Yes
Do rural/regional TAFE institutes more strongly demonstrate the characteristics of a learning organisation than do metropolitan TAFE institutes?	Yes

Results and comments

Are TAFE organisations learning organisations?

Table 3 presents a summary of responses to questions regarding TAFE institutes as learning organisations.

Table 3: Learning organisation results

Characteristic	Total	Dual sector	Regional/ rural	Metropol'n
Learning opportunities provided for staff	91.0%	100.0%	86.7%	90.0%
Shared organisation vision	84.8%	88.9%	87.1%	80.0%
Openness to change	79.2%	88.2%	83.3%	70.0%
Inter-unit cooperation	65.4%	52.9%	83.3%	53.3%
Team learning opportunities	71.5%	76.5%	80.0%	60.0%

Development of human capital	72.4%	61.1%	80.0%	71.4%

Sixty-eight (86.1%) of staff in TAFE organisations believe that their organisations are learning organisations. Dual-sector universities (94.4%) rank ahead of rural/regional TAFE institutes (89.2%), that in turn rank ahead of Metropolitan TAFE institutes (80%) as learning organisations. Of the occupational groups, senior managers (50%) were the least supportive of the contention that their organisations were not learning organisations. Conversely, 94.7% of general/administrative staff believed that they worked for a learning organisation, followed by teachers/teaching support staff, of which 88.5% believed that their organisations were learning organisations.

Kearns (1999) identified six characteristics (*italicised* in the discussion below) within the profile of a learning organisation. The questionnaire results for these characteristics confirm that TAFE organisations are learning organisations, although there is some reservation in making this statement.

Ninety-one percent of TAFE organisations *provide their staff with learning opportunities*. All respondents in dual-sector universities have the opportunity to participate in learning activities, 90% of TAFE staff in metropolitan TAFE institutes have a similar opportunity whilst 86.7% of staff in rural/regional TAFE institutes also have access to these opportunities.

Building a shared vision proved problematic for all TAFE organisations, but the result is still particularly high (84.8%). Dual-sector universities again ranked ahead of the other organisations (88.9%), however rural/regional TAFE institutes (87.1%) ranked ahead of larger metropolitan TAFE organisations (80%) in this matter.

As issues that impact upon organisational performance are taken into consideration, TAFE organisations appear to have some difficulty in meeting the criteria supporting their classification as learning organisations.

Openness to change and adaptability is demonstrated but is clearly questioned by many staff. 79.2% of the respondents believed that their organisations were open to change and were adaptable. Again, the dual-sector universities (88.2%) ranked ahead of rural/regional TAFE institutes (83.3%). Quite clearly, however, metropolitan TAFE institutes have some difficulty in demonstrating this characteristic, with only 70% of respondents classifying their organisations as open to change and adaptable.

Kearns (1999) identified adopting a systems perspective as a characteristic of the learning organisation. This characteristic caters for interconnectedness, applied system perspectives, ecological perspectives and the fostering of helicopter vision among staff. We have interpreted this to mean adopting a whole-of-organisation approach and asked the question, 'generally, do *units within the organisation operate cooperatively*?' Whilst our classification of Kearns (1999) may be challenged, the response to the question asked is disconcerting. Rural/regional TAFE institutes (83.3%) are more cooperative between themselves. However only 53.3% of staff in metropolitan TAFE institutes and 52.9% of TAFE staff in dual-sector universities believe that their organisations demonstrate inter-unit cooperation. Quite clearly, this aspect of operational activity (65.4% overall), or lack thereof, in TAFE organisations challenges the initial hypothesis that TAFE organisations are learning organisations. It may well be contended that individual units within the overall organisation are learning organisations, but the organisation when taken as a whole is not!

Similar results and concerns are identified when the *value and support of team learning* is considered. Team learning is better encouraged in rural/regional TAFE institutes (80%), and is evident in dual-sector universities (76.5%). However, an apparent lack of comparable support for this in metropolitan TAFE institutes (60%) reduces the overall result to 71.5%.

Finally the *commitment to the development of human capital* provides for some interesting results. The overall result for this characteristic was 72.4%. This result is buoyed by the strong performance of rural/regional TAFE institutes (80%), who are perceived as more strongly committed to the development of their staff, ranking well ahead of metropolitan TAFE institutes (71.4%) and dual-sector universities (61.1%). When taken with the result of the provision of learning opportunities (characteristic 1), the outcome for the dual-sector universities appears inconsistent. However, the provision of learning opportunities and a commitment to the development of staff are two very different things.

Firstly an organisation may provide opportunities for staff to learn, but if those opportunities are not relevant, or are contrary to the staff's learning needs, then this may be perceived as a lack of commitment. For example, learning opportunities may be made available in a range of activities such as application software skills, human resource management issues and general learning. But this is quite different to issues pertaining to Training Packages, VET in Schools, workplace delivery and assessment. Yes, learning is available, but it does not match with staff learning needs - resulting in a perceived lack of commitment. Certainly such a conclusion may be justified when taken into account with the support of team learning. In this characteristic, dual-sector universities demonstrate a much weaker result when compared to rural/regional TAFE institutes. It may well be that in team learning situations, TAFE staff in dual sector universities are provided with exposure to the types of learning they need - and the provision of learning in a team or unit context is not aligned to the organisation demonstrating a commitment to the development of its staff.

When compared to single-sector TAFE institutes, dual-sector universities are rated higher by their TAFE staff as being learning organisations (94.4%) than single sector TAFE institutes (80.4%).

The ranking of dual-sector universities as learning organisations (Q. 8) ahead of single-sector TAFE institutes per se is challenged when an analysis is undertaken between the three organisational categories used in this paper. An analysis by demonstrated characteristic produces an interesting outcome. By averaging the ranking of each type of organisation, rural/regional TAFE institutes (1.67) rank ahead of dual-sector universities (1.83), whereas metropolitan TAFE institutes (2.5) are least able to demonstrate the characteristics of a learning organisation. Rural/regional TAFE institutes have staff who believe that their organisations strongly demonstrate a degree of unity (cooperation), team learning and a commitment to the development of their people. In addition, they ranked slightly behind dual sector universities in the sharing of the organisation's vision (87.1% as against 88.9%). However, a larger sample is required to provide a definitive result for these two types of organisations.

On the other hand, despite the small sample, metropolitan TAFE institutes were quite clearly less able to demonstrate their capacity as learning organisations, achieving a rate of 80% or less for all but one (learning opportunities) of the characteristics.

Are TAFE staff lifelong learners?

All teaching/teaching support staff believed that they were lifelong learners, a particularly positive result given the changing nature of their work and identity as identified by Chappell (1999), and their role in teaching others to become lifelong learners. Surprisingly, one (12.5%) senior manager did not classify him/herself as a lifelong learner, with three (16.7%) general/administrative staff giving the same response. Of the 74 lifelong learners, ten (13.5%) did not believe that their organisations were learning organisations.

The characteristics of a lifelong learner as identified by Kearns (1999) were used as the basis for determining the status of the outcome. (Note: there was an additional inquiry to determine personal capacity to change, and interpersonal effectiveness was modified to learning from others and sharing of personal knowledge). The percentage of respondents who agreed that they demonstrated each characteristic is shown in Table 4.

Table 4: Lifelong learner results

Characteristic	Total	Dual sector	Regional/ rural	Metropol' n
Inquiring mind	97.4%	94.1%	96.8%	100.0%
Concept of the big picture	96.1%	94.4%	100.0%	96.6%
Commitment to personal development	98.7%	100.0%	100.0%	96.7%
Capacity to change	100%	100.0%	100.0%	100.0%
Learning from other team members	97.5%	88.9%	100.0%	100.0%
Sharing your knowledge with other team members	94.9%	88.9%	100.0%	93.3%
Ability to use modern information technologies	94.9%	88.9%	96.7%	96.7%
Awareness of different types of learning	97.5%	100.0%	96.8%	96.7%

Quite clearly all respondents believed that they demonstrated the characteristics of a lifelong learner. Of interest is the apparent lack of knowledge sharing that takes place within dual-sector universities (88.9%) and metropolitan TAFE institutes (93.3%), however there is little causal information that can expand upon this divergence between the organisational types at this stage of our analysis.

Concerns arise when one lifelong learning characteristic ('knowledge sharing') is linked to the learning organisation characteristic 'inter-unit cooperation'. Of the 74 who believed that they shared their knowledge with others within their team, 23 (31.1%) did not believe the organisation demonstrated the characteristic of inter-unit cooperation. Given that these people are prepared to share their knowledge with others, albeit within their team, it is most likely that they would also be prepared to share their knowledge with others from within the same organisation. This result may indicate that there are other variables that interfere with TAFE organisations' capacities to cooperate internally and effectively share knowledge.

Conclusion

Final conclusions regarding TAFE institutes as learning organisations and TAFE staff as lifelong learners are not appropriate at this stage. Evaluative statements supporting the closed questions within the questionnaire are still being analysed. There are quite clearly some inconsistencies in the results and a broader study of TAFE institutes as learning organisations - and their staff as lifelong learners - is clearly needed.

TAFE staff have indicated that they believe their organisations are learning organisations and that they themselves are lifelong learners. Yet there is evidence to suggest that TAFE staff are not risk takers, and their reluctance is related to a fear of criticism from management. Additional evidence is required to definitively support this statement. However, were it to be true, then the assertion that TAFE institutes are learning organisations and TAFE staff are lifelong learners is certainly open to broader debate.

Future research

The results from this research have generated more questions than they may have answered. The following is a range of issues that have been identified within this survey as requiring further research.

1. Why don't all TAFE senior managers classify their organisations as learning organisations? Whilst it can be inferred that the notion of the learning organisation is part of an evolving culture, and as such it may be accepted that not all organisations have evolved to the same degree, this question needs to be asked. Seven (87.5%) of TAFE senior managers believed that their organisation was a learning organisation. One senior manager believed that his/her organisation was not. Is the degree of evolution the only explanation, or are there other factors that these respondents have identified and their peers have chosen to ignore?

2. Is organisation size a factor in creating a learning organisation? Do smaller organisations and those with fewer campuses create a greater sense of unity and 'community'? The rural/regional TAFE organisations are much smaller than dual sector universities and metropolitan TAFE institutes that participated in this survey. However, these smaller organisations certainly performed much better than their metropolitan TAFE counterparts and, it may be argued, at least as well as the dual-sector universities.

3. In larger organisations, does the unit or team within the structure develop its own character to overcome the difficulties (Lei et al 1999) presented by a 'whole of organisation' approach?

   Alternatively, is the prevailing organisation culture a factor that encourages or discourages the 'evolution' of learning organisations? Dual-sector universities are historically perceived as more open and rigorous in their discussion of management and 'academic' issues. Consequently, their culture encapsulates many of the characteristics pertaining to the learning organisation.

4. Why do regional/rural TAFE institutes demonstrate characteristics that support cooperative behaviour? Again, is size a factor in determining this matter? As an organisation grows in size, a bureaucracy forms and internal politics and alliances create divisions and in some cases a sense of ownership of the intellectual capital, thereby reducing the knowledge sharing capability of the organisation (Lei et al 1999).

5. Is there a conflict between the learning needs of TAFE staff in dual-sector universities and the provision of learning opportunities?

6. Why do dual-sector universities perform better as learning organisations when compared to metropolitan TAFE institutes? Is it a question of TAFE staff in dual-sector universities having access to a broader range of resources (ie universities offering many services to their TAFE staff at a lower cost or no cost while single-sector TAFE institutes buy these services in or pay for them)? Does access to a shared and/or larger infrastructure provide TAFE staff in dual-sector universities with better access to some of the tools of the learning organisation (eg libraries, computer facilities) than are available to staff in single-sector TAFE institutes?

7. Is personal self-image a contributing factor in creating the lifelong learner? Is location a factor in creating a stronger self-image? In large cities, do universities have a higher profile than do TAFE institutes? In rural/regional environments, are TAFE institutes more valued community members than metropolitan TAFE institutes?

8. Is learning in a smaller organisation more visible and does it promote a culture that supports knowledge sharing?

9. Is professional development in a metropolitan environment perceived as individually focused rather than organisation-focused?

10. What impact does job mobility play in promoting an organisational focus?

11. Are TAFE staff risk takers? Are mistakes in TAFE considered learning experiences? Are TAFE staff reluctant to take risks because they are concerned about personal repercussions?

Acknowledgements

The research team would like to acknowledge the cooperation and participation of the following organisations and their staff:

- Central Metropolitan College of TAFE
- Kangan-Batman Institute of TAFE
- Mt Isa Institute of TAFE
- Northern Territory University (TAFE Division)
- Sunraysia Institute of TAFE
- Swinburne University of Technology (TAFE Division)

References

Chappell C (1999) Issues of teacher identity in a restructuring VET system. Working Paper no 31, RCVET.

Ferrier F and Whittingham K (2000) Emerging skill requirements of the Australian economy. Centre for Curriculum Innovation and Development Seminar Series, Victoria University (unpublished).

Fisher S R and White M A (2000) Downsizing in a learning organisation: are there hidden costs? Academy of Management Review, vol 25, no 1. http://web6.infotrac.galegroup.co...xrn_1_0_A59481965?sw_aep=vut_main (accessed 7 April 2000).

Glynn M A, Lant T K and Milliken F J (1994) Mapping learning processes in organizations. Cited in S R Fisher and M A White (2000) Downsizing in a learning organisation: are there hidden costs? Academy of Management Review, vol 25, no 1. http://web6.infotrac.galegroup.co...xrn_1_0_A59481965?sw_aep=vut_main (accessed 7 April 2000).

Kearns P (1999) Lifelong learning - implications for VET: a discussion paper. UTS, NCVER.

Kirnane D E (1999) Getting wise to knowledge management. Association Management, vol 21, no 8. http://web6.infotrac.galegroup.co...rn_10_0_A55777694?sw_aep=vut_main (accessed 7 April 2000).

Kline P and Saunders B (1993) Ten steps to a learning organization. Great Ocean Publishers.

Lei D, Slocum J and Pitts R (1999) Designing organisations for competitive advantage: the power of unlearning and learning. Organisational Dynamics, winter, pp 24-38.

McGill M E and Slocum Jr J W (1995) Executive development in learning organizations. American Journal of Management Development, vol 1, no 2, pp 23-30.

Ralph D. South Australian Centre for Lifelong Learning and Development. http://www.premcab.sa.gov.au/lifelong-learning/ (accessed 8 January 2001).

Contact details

Sue Holden
Ph: +61 3 9284 8351
Email: Sue.Holden@vu.edu.au

Researching distance education: Penn State's Online Adult Education MEd Degree on the world campus

Eunice Askov and Mary Simpson

Institute for the Study of Adult Literacy, The Pennsylvania State University

Pennsylvania

A dominant response by higher education institutions to their changing environment is the development of online distance education programs. This paper reports on a program-based initiative that introduced a group of adult students to masters-level study in a computer-mediated online environment. Their experience, monitored by means of surveys, evaluative comments and time tracking charts, is reported on. The results indicate that a collaborative learning environment was created. Small group and paired work was important in this development. In addition, students perceived an increase in their ability to use technology. Results also indicate students moved towards independence and interdependence within the course environment.

Many universities are wishing to respond to the changing characteristics of their students and the increasing access to technology for both faculty and students. University administrators and planners often see new technologies as opening up new markets of students who traditionally might not have had access to undergraduate and graduate education. Between 1995 and 1998 the number of courses offered at a distance doubled and the percentage of higher education institutions offering distance education courses in the USA increased by one third (National Center for Educational Statistics 1999).

Distance education 'is planned learning that normally occurs in a different place from teaching' (Moore and Kearsley 1996, p 2). The National Center for Educational Statistics (NCES), through its PEQIS (Post Secondary Quick Information System) surveys, provides a picture of trends in distance education in the USA, using a more constrained definition - one that focuses on electronic media. NCES defines distance education as education and training courses delivered to off-campus students via audio, video or computer technologies. The most recent report notes that several forces are at work - convergence of communication and computing technologies, changing demographics of students, and the need to reduce costs. Institutions, it is suggested, see distance education as attractive as they seek increased enrolments and decreased costs. Students, the survey says, benefit from increased access for those constrained by geography, time, job and family responsibilities and finances. Distance education offerings are increasing. More courses are being offered, particularly by institutions who already have a distance education tradition.

Several writers and researchers also suggest that computer-mediated communication (CMC) will enable teachers and institutions to extend educational and communication opportunities (eg Dede 1996; Spencer 1998). Hiltz (1994) and Kaye (1989) claim that CMC is able to support teaching and learning for distance and dispersed learners and build the type of community that strongly supports learning.

A new educational paradigm that is time independent, place independent and supports many-to-many interactions is heralded by some writers (Beller 1998; Harasim 1989; Kaye 1989; Turoff 1997). For faculties using these technologies for the first time, there are new issues related to teaching, learning, and learner characteristics to be considered as they come to meet the personal challenges of teaching in a new way. Windschitl (1998) has urged university researchers to become involved in researching instruction using the internet to explore emerging possibilities for improved instruction at all levels.

Research background

Two broad questions formed the foundation for a review of theory and research: What are the characteristics of adult learners that should be developed, encouraged, and taken advantage of in instruction offered through distance education? What are the elements of an effective online learning environment? These two questions were set within the context of a course on research methods that focused on developing an online learning community for graduate students enrolled in a web-based Masters degree program in Adult Education.

Graduate students as adult learners

In writing about part-time graduate school study, Pitman (1997, p 72) comments about adult students:

> Adult students generally want to be treated as adults, a preference that grows stronger over time. Adults tend to be more goal oriented than younger students, and they look for immediate opportunities to apply course content. Also, they bring valuable experience to the classroom; professors and other students learn from them. All of this is grossly oversimplified, of course, but it is generally helpful in designing educational programs for adults.

Other broadly useful design parameters as characteristics of adult learners are the notions of self-direction and a wish to be active participants in their learning. Brookfield (1986) and Knowles (1980) both support the ideas that adults wish to participate in their own learning and assume some responsibility for it. In a graduate-level course there can be some tension between the formal framework of a course and these characteristics. In addition, the course instructor has to recognise the points at which support or guidance is needed and provide it in a manner that does not undermine the learner.

Group work and collaboration have been widely used as a means of sharing experience, exploring ideas and building new learning (Tennant 1991). Activities in small groups and with learning partners can develop a sense of community that supports learning (Cook 1995). The development of self-direction and collaboration in distance education needs support and guidance, and providing this becomes an important role for the instructor (Eastmond 1997).

Distance study at a graduate level has strong links to adult learning. It is increasingly through distance education that an adult returns to school. The need for an advanced degree to further work aspirations or a return to study as a preparation for a refocused stage of life often lead adult students to graduate school (Pitman 1997). In a survey of graduate students, Hammon and Albiston (1998) found study is usually undertaken on a part-time basis. Family and work constraints were factors considered in the decision to return to study. The challenge is for higher education to adapt objectives, content and presentation to support learning for this group. Graduate-level study calls for attributes of independence and focused effort. Dialogue and debate are expected (Swenson 1995).

Learning environments

Traditionally most learners have assembled together in classrooms of some type. In these settings, professors aim to guide the learning activities that help students construct knowledge. Typically this guiding process involves three key steps:

- Understanding and knowing the prior knowledge of the students so links can be made between old learning and new;
- Responding to the students to promote feedback and gathering the responses to use in the construction of new or refined knowledge;
- Helping the students see how activities and ideas presented build or combine to increase understanding and knowledge. (Slavin 1997)

Such a constructivist approach emphasises the active role learners take in knowledge construction. Learning thus defined has strong social aspects, and interactions between learners and instructor, and learners and learners, are important. This type of learning environment has been valued in the adult education program that is the context for the research reported here. Maintaining such an approach in a distance education environment was considered important.

Online groups/learning communities

The social dimension of learning and social interactions can have a significant impact on learning outcomes (Burge 1994; Jonasson et al 1995). Learners need the chance to interact, discuss, refine and reflect. Collaboration allows them to do this. Computer-based collaboration adds flexibility with its any time, any place capability (Harasim et al 1995). It also makes collaborative discussions, peer activities and small group work possible. These activities encourage independence and self-direction and demonstrate the interactivity that is the major advantage of computer conferencing (Eastmond 1998; Mason 1994; Schrum 1998). A key role for the instructor is to act as a facilitator and to carefully monitor and support the interactions (Burge 1994; Wegerif 1998). A skilled instructor (or facilitator) seems to be required to ensure that groups work well together (Gunawardena and Zittle 1997; Wegerif 1998).

Study context

This study is based on the results of four surveys, time tracking charts and evaluations used to gain students' responses to the online teaching and learning environment that was developed for them. The theoretical perspective reflects the importance of developing an online learning community for graduate students, emphasising collaboration and self-direction in learning.

The graduate students in this study were a 'typical' adult group. Many were returning to study, most were women, and all had other responsibilities. Twenty-six students logged on at the beginning of the course. After the first week, when two students withdrew, the group settled to 24 students. Later in the course, two students decided to defer completion of the course due to family responsibilities. The students were advised in advance that they should allow 12 hours per week for their coursework and have access to the computer equipment required for the distance education course that had no face-to-face component.

The online Masters degree program is offered from a land grant university in the USA (Penn State) that has a history of outreach and distance education. Recently, in response to the changes in student demographics and needs, the university has developed a virtual campus (known as the World Campus) that is designed to continue the outreach mission and extend that commitment to distance students. Central to the virtual campus development has been a focus on using new technologies to provide an interactive environment for students.

Although the course was an existing one that had been previously taught by the researcher, careful planning and preparation occurred before it was placed online. A team approach was employed as for all courses on the World Campus, involving an instructional designer, programmers, program manager, marketing and research specialists. (Faculty members are released from one course for the two semesters prior to instruction for course development. Whenever they teach for the World Campus, they are also released from teaching a course on campus. Thus, all instruction through the World Campus is part of a faculty member's load.) An additional instructor was added to assist with grading some assignments as a way to prepare him for teaching upcoming courses through the World Campus.

The online version of the course was developed using WebCT to create a password-protected web site whose major features were multiple bulletin boards, an email system, automatic record-keeping available to faculty and individual students at any time, online text and images, and links to other web sites. Students were provided with a weekly schedule for course task completion. Assignments included an approximately even balance of those to be completed individually (and submitted to the instructor by email or done as a self-check) and those that required small group work that was posted to the appropriate bulletin board.

Methods

Data were gathered before, during and at the end of the course. There were four major survey points. A pre-course survey was administered online at the beginning of the course. The questions focused on technology use, the learning process, the course structure and content. The post-course survey repeated the same questions and also included two questions related to the time tracking exercise. A mid-course survey (referred to as 'mid- survey') focused on the course objectives, feedback, assignments, support material and faculty/student interactions. Students were: given the opportunity to add further comments; asked to indicate their willingness to take another course designed in a similar way; and asked whether they would recommend the course to others. The reflection survey (referred to as 'reflect survey') asked students how well they felt they had met course objectives. It also asked for comments about teamwork and the development of an online community. In addition to the surveys, the students were asked to keep a weekly Time Tracking Chart and to post evaluative comments on group work to a discussion forum. A Suggestion Box was available throughout the course for student input and feedback.

The surveys used a Semantic Differential approach that asked for students to react on a seven-point scale to polar opposite adjectives about specific content (Osgood et al 1967). The pre and post surveys were used to determine changes in student response over the duration of the course. The two remaining surveys and the Time Tracking Chart provided additional data relevant to the pre-post survey themes. The evaluative comments were used to gain an overall understanding of the students' experiences. The qualitative data were then analysed to identify themes in the comments that develop a richer picture of the student experiences. According to Windschitl (1998), using mixed methods, as in this study, is superior in identifying and describing the impact of the internet on instruction.

From the pre and post survey, sixteen paired responses were analysed using the Wilcoxon matched-pairs signed ranks test to determine if there was a statistically significant change in responses to the pre and post items. For all items in the technology use theme, a directional change was hypothesised. It was considered that students would report: moving toward expertise in computer use (Q2); less apprehension about internet use for the course (Q6); and to increasingly like using the computer (Q14). One tail tests were used for these items, and also for two items in the course and content theme. It was hypothesised that students would report increasing expertise in their knowledge of adult education (Q4) and research (Q5). Tests for all other items were two tail tests, since no hypothesis for direction of change was made. All tests used a significance level of .05. Zero differences were not included in the analysis. Coding for Questions 3, 4 and 7 (negative items) was reversed before analysis.

Results

The pre- and post-semantic differential surveys provide information about changes in the students' perceptions of various aspects of the delivery and the course. The other surveys (mid - completed by 80% of the students; reflect - completed by 67%) and student evaluations provided comments and further responses that enriched the picture. This section reports the results of the pre and post surveys and includes supplementary information from the other surveys where relevant. Tables 1, 2 and 3 give z-scores arising from use of the Wilcoxon Signed Ranks test with the pre and post surveys.

Table 1: z-scores for technology use (pre- and post-survey items)

	Q2	Q6	Q14
z-score	-1.84*	-2.59*	-0.31

Table 2: z-scores for course and content (pre- and post-survey items)

	Q3	Q4	Q5	Q17	Q18
z-score	-2.19*	-1.82*	-2.59*	-0.34	-1.15

Table 3: z-scores for learning process (pre- and post-survey items)

	Q1	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q15	Q16
z-score	-1.18	-2.66*	-1.07	-0.05	-1.01	-1.78	0	-1.29	0	-2.25*

For all tables * = p< .05.

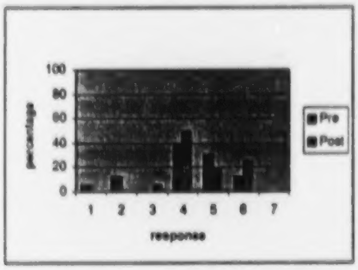
In the section that follows, items identified as showing significant change are presented in graphic form to indicate the direction of the change. Relevant information from other data sources is included. In all cases, four (4) is a neutral response.

Technology use

Some questions related to the use of technology are presented below:

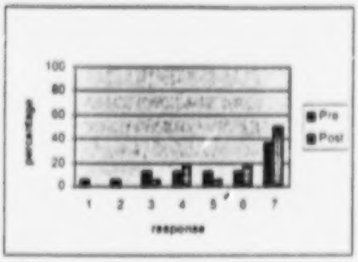
Q2: A range from a computer novice (1) to computer expert (7).

Figure 1: Pre/post pairs Q2



Q6: A range from apprehensive about internet use for the class (1) to confident about internet use for the class (7).

Figure 2: Pre/post pairs Q6

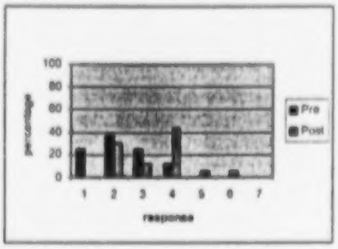


Course and content

Related to internet use was a question that asked about exploring resources found on the web. Students in this course need to develop skills in locating and using resources for research purposes as well as foundational research skills. These are skills that they will use later in their program as they write their Masters papers.

Q5: A range from research novice (1) to research expert (7).

Figure 3: Pre/post pairs Q5



Q1 in the reflect survey asked: How well do you feel you met the following course objective: 'Through this course, you will critically analyse research studies published in adult education journals for factors such as assumptions, biases, and contributions to the knowledge base and practice'. All students (100%) indicated they had either mostly or completely mastered the objective.

Q5 in the reflect survey asked: How well do you feel you met the following course objective: 'Through this course, you will gain a foundation for your course in Adult Education and for writing your Masters paper in ADTED 588, which you will take toward the end of your degree program'. Ninety-four (94%) indicated they had mostly or completely mastered the objective.

The other responses (Q 2, 3 and 4) from the reflection survey, which focused on course content mastery, indicate that most students rated their mastery of course objectives very highly.

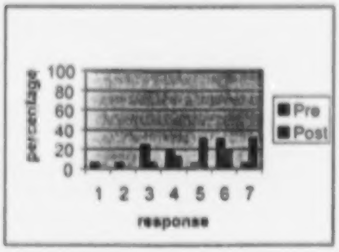
The mid survey provided some course- and content-related perspectives. At that point in the course, 80% of students were finding the course objectives easy to understand; 85% said the assignments and activities were clearly explained; and 95% said the assignments provided practice of the lesson objectives. The performance expectations and effort required were seen by 75% to be clear and feedback was timely (80%) and detailed (70%).

The learning process

The learning process, as already indicated, was a key consideration in the planning, delivery and teaching of this course. Two of the pre- and post-survey responses related to this concept.

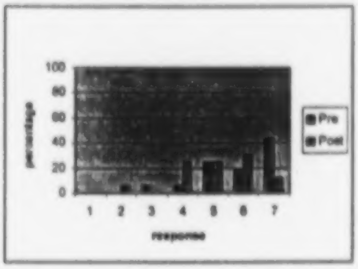
Q7: A range from prefer to be a self-directed learner (1) to prefer direction (7).

Figure 4: Pre/post pairs Q7



Q16: A range from dislike being helped in class by others (1) to like to be helped in class by others (7).

Figure 5: Pre/post pairs Q16



In support of this finding, Q17 of the mid survey showed that 80% of the students interacted with other students between four and five times a week. Also from the mid survey, students indicated that they 'almost always or better' applied concepts in actual or simulated situations; felt 'very often or always' active participants in the teaching and learning process (90% of respondents); and 'very often or always' felt encouraged to challenge the instructor's and other students' ideas (75% of respondents). Most (60%) also felt they interacted with the instructor 'very often or always'.

Data about time spent working on coursework and about working with others were gathered through the Time Tracking Chart and Q 18 in the mid-survey. At the mid-point of the course, 55% of the students indicated they spent 11-15 hours on the course and 20% indicated more than 15 hours. The Time Tracking Charts, when analysed at the end of the course, showed an average of 6.91 hours online and 6.26

hours offline per week over the whole course. The instructors also spent a total of approximately 12 hours per week on the course (both on and offline).

There were two final questions in the mid survey. When asked if they would be willing to take another course that was designed in a similar manner, 100% of the students responded positively. When also asked if they would recommend another student to take a course designed in a similar manner, 95% indicated they would.

The students were given the opportunity to comment on various aspects of the course, such as group work, strengths and weaknesses, teamwork and the online community. Comments from these evaluations illustrate some of the discussion points that follow.

Discussion

This section comments briefly, in turn, on each of the three areas that formed the basis of the pre and post surveys. In particular, however, it draws on students' comments about one aspect of the learning environment - working in groups.

Technology use

In two of the items related to this theme, significant change can be seen. As might be expected in a course that requires considerable interaction via computer, students reported more expertise in computer use and less apprehension about the use of the internet for the class.

Course and content

The responses to Q5 (pre/post survey) about research novice/research expert show that while most wouldn't call themselves experts, they did become more confident. The learning objective related to using research studies (Q1 reflect survey) and the one related to using their research skills (Q5 reflect survey) showed very high levels (100% and 94% respectively) of confidence appropriate to their level of study.

The greatest strength of the course for the students was the instructors and the guidance and support provided. Interaction was the second greatest strength.

> Strengths: Flexibility of timing, well thought out and planned, ease in use once you get started, availability of support, positive support from instructors, printed material and course is user friendly, non-intimidating (most of the time). (Comment from student 24).

The learning process

The results showed that the learning environment created made good matches to the learning principles that had guided the delivery design. Computer conferencing can allow the interactive and collaborative aspects of learning to flourish. As has been indicated, many student comments pointed to the importance of the instructor in the learning process.

> Strengths: positive support from instructors. (Comment from student 8).

Of the eleven items that contributed to the learning process theme, two were found to be significant. First though, note the change reported in the previous course and content section that students grew to feel more capable of using the internet to search for and find information useful in the course. While this item also reflects the confidence in technology use noted already, it must reflect more than that. Students reporting a shift to expertise must also be weighing their ability to make judgments about the nature of the material useful in their particular learning environment. This increasing expertise is matched by a significant shift in feelings towards self direction in learning (Q7). These changes point to the increasing independence of students. This conclusion is supported by the results of Q16 that students grew to dislike being helped. These points do not, however, indicate that students did not enjoy or appreciate working together.

The evaluative comments gathered about group work enriched the picture of student interaction and support that emerged. These supported the literature findings suggesting that, for distance students, the learning process can be enriched through small group work. Group work was important for the students and a valuable aspect of the course. Ninety-three percent (93%) of the students who responded mentioned that they had found the group work valuable. Those who elaborated on this mentioned the sense of community or classroom that was built and the value and support they had found in this. It was also evident that most groups and partnerships had worked well.

> It *[the group work]* gave me the feeling that I was actually in a classroom environment. (Comment from student 17.)
>
> I (we) thought the group work was the best part of the class. It really gave me that much needed human contact and sounding boards. (Comment from student 23)
>
> I think it [group work] did establish a learning community and for me, it added some discipline and structure to an assignment. Peer pressure is useful for procrastinators. (Comment from student 13).
>
> I found that we worked so well together that I would have preferred all assignments to be done that way. (Comment from student 9).

The students also commented on group size, indicating that a group of six was the maximum size they would want. They had found the amount and timing of group work to be about right but experienced some difficulties getting together - even online.

There was further support for the group work and the development of an online community in the comments associated with the reflect survey. Over ninety percent of the students indicated they felt part of an online community. Most also commented on the value of shared contributions that had helped them develop the course concepts. It had been, they indicated, a valuable and enjoyable experience. Clearly, the students grew to increasingly value independence and interdependence, but not dependence.

> I really felt like part of a class with this experience. With the exception of knowing what people looked like I feel I got to know personalities, interests and levels of experience in Adult Education. We interacted a lot which I found an interesting experience. I enjoyed the web pages that we had to do during that first week. Great idea. I really feel like part of a community. (Comment from student 6).

Conclusion

While the study demonstrated that an appropriate online learning environment could be developed for distance adult students, we should not consider that the move from traditional class teaching to online is without questions and mysteries of its own. There are areas to research that would further develop our understanding of online teaching and learning and benefit the new and returning students who are moving into higher education. We need to know more about how students interact with the material, how groups work to support learning, and the role the instructor plays in facilitating and developing learning in a collaborative distance environment.

References

Beller M (1998) The crossroads between lifelong learning and information technology: a challenge facing leading universities. Journal of Computer Mediated Communication, vol 4, no 2. http://www.ascusc.org/jcmc/ (accessed 9 March 2000).

Brookfield S (1986) Understanding and facilitating adult learning. San Francisco: Jossey-Bass.

Burge E J (1994) Learning in computer conferenced contexts: the learners' perspective. Journal of Distance Education, vol 9, no 1, pp 19-43.

Cook D L (1995) Community and computer-generated distance learning environments. In M H Rossman and M E Rossman (eds) Facilitating distance education. New directions for adult and continuing education, no 67. San Francisco: Jossey-Bass.

Dede C (1996) The evolution of distance education: emerging technologies and distributed learning. American Journal of Distance Education, vol 10, no 2, pp 4-36.

Eastmond D V (1998) Adult learners and internet-based distance education. In B Cahoon (ed) Adult learning and the internet. New directions for adult and continuing education, no 78. San Francisco: Jossey-Bass.

Eastmond D V (1997) Alone but together: adult distance study through computer conferencing. Cresskill, New Jersey: Hampton Press.

Gunawardena C N and Zittle F J (1997) Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. American Journal of Distance Education, vol 11, no 3, pp 8-26.

Hammon D L and Albiston S K (1998) Completing graduate school long distance. Thousand Oaks: Sage.

Harasim L (1989) Online education: a new domain. In R Mason and A Kaye (eds) Mindweave: communication, computers and distance education. Oxford, England: Permagon.

Kaye A (1989) Computer-mediated communication and distance education. In R Mason and A Kaye (eds) Mindweave: communication, computers and distance education. Oxford: Pergamon Press, pp 3-22.

Knowles M S (1980) The modern practice of adult education: from pedagogy to andragogy, second edition. New York: Cambridge Books.

Mason R (1994) Using communications in open and flexible learning. London: Kogan Page.

Moore M G and Kearsley G (1996) Distance education: a systems view. Belmont, CA: Wadsworth Publishing Company.

National Center for Educational Statistics (1999). http://nces.ed.gov/pubs98/pj2008/highlights.html (accessed 7 June 2000).

Osgood C E, Suci G J and Tannenbaum P H (1967) The measurement of meaning. Urbana: University of Illinois Press.

Pitman V (1997) Surviving graduate school part time. Thousand Oaks: Sage.

Schrum L (1998) On-line education: a study of emerging pedagogy. In B Cahoon (ed) Adult learning and the internet. New directions for adult and continuing education, no 78. San Francisco: Jossey-Bass.

Slavin R E (1997) Educational psychology: theory and practice (fifth edition). Needham Heights, MA: Allyn and Bacon.

Spencer B (1998) Distance education and the virtual classroom. In S M Scott, B Spencer and A M Thomas (eds) Learning for life: Canadian readings in adult education. Toronto, Canada: Thompson.

Swenson C D (1995) Graduate degree programs and distance education. In M E Rossman and M E Rossman (eds) Facilitating distance education. New directions for adult and continuing education, no 67. San Francisco: Jossey-Bass.

Tennant M (1991) The psychology of adult teaching. In J M Peters and P Jarvis (eds) Adult education: evolution and achievements in a developing field of study. San Francisco: Jossey-Bass.

Turoff M (1997) Alternative futures for distance learning: the force and the darkside. http://eies.njit.edu/~turoff/Papers/darkaln.html (accessed 9 March 2000).

Wegerif R (1998) The social dimension of asynchronous learning networks. Journal of Asynchronous Learning Networks, vol 2, no 1, pp 34-49. http://www.aln.org/alnweb/journal/jaln_vol2issue1.htm#wegerif (accessed 13 March 2000).

Windschitl M (1998) The WWW and classroom research: what path should we take? Educational Researcher, vol 27, no 1, pp 28-33.

Contact details

Mary Simpson
Email: Simpson4@esc.net.au

Eunice Askov
Professor of Education
Director, Institute for the Study of Adult Literacy
Pennsylvania State University
102 Rackley Building
University Park, PA 16802
Ph: (814) 863-3777 Fax: (814) 863-6108
Email: ena1@psu.edu

Young people in transition: factors influencing the educational-vocational pathways of Australian school-leavers

James Athanasou

University of Technology, Sydney

The educational achievements of a representative national sample of Australian school leavers were examined after leaving school. The study was part of the longitudinal Youth in Transition study - a national probability sample of Australian youth. There was sufficient evidence to argue that the educational and occupational achievements were related to gender, socioeconomic status, ethnicity, geographical location (rurality), completion of the highest level of secondary schooling, vocational interests in high school and even levels of literacy and numeracy in primary school. Vocational educational achievement was linked to gender (male), non-completion of year 12, and lower socioeconomic status. A tentative model of educational-vocational achievement is outlined.

People vary greatly in their educational and vocational achievements throughout the lifespan and this is a familiar phenomenon to both laypersons as well as researchers. The broad pattern of educational achievement in Australia is also changing over time and some aspects of this are indicated in Table 1. There is a major increase in the proportion of persons with degrees over the period 1991-2000 and a reduction in those who have only some primary or secondary schooling. Nevertheless, it is clear that for half the workforce, educational-vocational attainment is still directed towards no formal qualifications.

Table 1: Educational attainments of the workforce

Educational achievement	Persons 1991	%	Persons 2000	%
Degree (higher degree, graduate diploma, bachelor degree)	1,027,100	10%	1,984,500	18%
Diploma (undergraduate, associate diploma)	3,635,300	36%	1,040,800	9%
Certificate (skilled vocational, basic vocational)	(included above)		2,513,900	23%
Other (highest level of schooling, did not complete school)	5,348,000	53%	5,500,800	50%
Total	10,010,400		11,040,000	

Note: Excludes 683,700 persons aged 15-64 years still at school, 918,200 attending tertiary education in 2000, 662,500 still at school and 728,900 attending tertiary in 1991. All percentages are rounded. 1991 and 2000 figures are not comparable for diploma and certificate levels in 1991 and 2000.
Source: Australian Bureau of Statistics, Transition from Education to Work, Cat No. 6227.0, Table 9 (May 2000, p 16); Table 6 (May 1991, p 9).

Explanations for differences in achievement vary from individual differences in ability through to educational influences or distinct social causes. Holland (1997) has listed many characteristics of the person and the environment that influence vocational development and included: age, gender, ethnicity, geography, social class, physical assets or liabilities, educational level attained, intelligence and influence (1997, p 13).

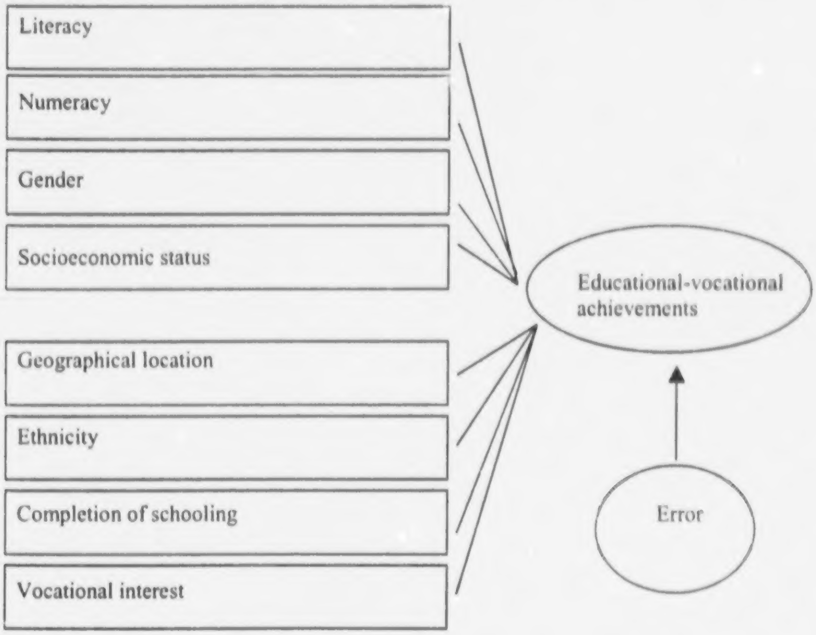
Using a broad sociological framework, Gottfredson (1981) pointed out that public factors such as gender and prestige circumscribed and compromised career choices. She outlined how many career choices are stereotyped on the basis of masculinity-femininity or desired social standing and that people often settle for less than optimal careers. While she focused mainly on the accommodations that we make in our vocational development and not exclusively on the level of educational achievement, she has reported that interest types and status can account for educational attainment and variable income levels (see Gottfredson 1996; Gottfredson and Brown 1981).

In an Australian context, Long et al (1999) developed a model of influences on educational participation. They reported that family and personal characteristics (gender, parental education and occupation, family wealth, father's country of birth, residential location) interacted with school experiences and post-school expectations (school achievement, type of school system, parent and teacher expectations, friends' plans and self-concept of ability).

The purpose of this study is to explore factors that might contribute to the initial educational and occupational pathways of Australian schoolleavers. It is a meaningful topic for investigation because of its significance for the individual, the ramifications for the community, the implications for policy makers as well as for professionals in careers guidance, education and human resource development. While educational achievement has been investigated in schools and tertiary settings, it is not always the case that the initial educational-vocational achievements of a school cohort have been followed.

Educational-vocational achievement means the typical educational requirements of an occupation (eg a degree for an electrical engineer; an associate diploma for an electronics technician; a certificate for an electrician; and no formal qualification for a trades assistant). This is a practical index or description of educational achievement in terms of the eventual occupational outcome. It is recognised, however, that in many cases some persons might achieve educational and training qualifications but not use these in their chosen occupations, or be forced to accept jobs with lesser educational requirements. On the other hand, a smaller proportion of persons might be able to pursue some less regulated occupations without having completed typical levels of qualifications.

Figure 1: A tentative model of links with educational-vocational achievements



A tentative model for initial educational-vocational attainment was proposed at the outset (see Figure 1). It is a qualitative model and not a causal or structural equation model. The emphasis is on description because many of the factors (eg gender, ethnicity, socioeconomic status) do not have the additive properties that are essential for true measurement (see Michell 1999). Finally, it is a model that operates at the initial stage of one's career and it is recognised that there are additional factors (designated as error) that influence career transitions.

The focus is on the general level of occupational attainments (degree, diploma, certificate, or no formal qualification) in the first stages of one's career. It is argued that someone's level of educational achievement may be linked to (a) a wide range of public information about the person; (b) scholastic performance in areas of literacy and numeracy; and (c) vocational interests.

Youth in Transition

This study uses the Youth in Transition data, which is an ongoing study of the vocational pathways of young Australians (see McKenzie 2000). The survey is made up of a cohort of young people born in 1970 and forms part of the Longitudinal Surveys of Australian Youth conducted by the Australian Council for Educational Research. The objective of the surveys was to indicate the main factors that affect personal, educational, vocational and social outcomes. A two-stage stratified probability sample involved a nationwide sample of schools that included government, independent and Catholic school systems. From each of these, 25 pupils were randomly selected. Participants were first contacted in schools and further data were collected by an annual mail survey over a ten-year period. The 1970 cohort is used in this study and was first assessed in 1980 and then followed up at yearly intervals from 1985-1994. Lamb et al (1995, p 27) went so far as to say 'it represents one of the most substantial long-term studies of outcomes undertaken in Australia'. This study used the recently released data from this valuable historical database to describe key influences on one's educational achievement.

The study

Participants

The participants in this study comprised pupils (males=1436; female=1273) from the 1970 Youth in Transition cohort, who were first tested as part of the Australian Studies of School Performance in 1980. When contacted again in 1985, the mean age of the sample was 15.5 years (SD=0.3). Participants were followed up by mail annually and this study includes only those who were working full time. The numbers of participants varied from a minimum of 848 in 1985 to a maximum of 1314 in 1988 (1985 - 848; 1986 - 1086; 1987 - 1143; 1988 - 1314; 1989 - 1227; 1990 - 1132; 1991 - 1258).

Instrument

The following demographic data were obtained by questionnaire:

a) gender;
b) whether or not students completed year 12;
c) rurality at age 14 (defined in terms of population density in a local government area and categorised as quartiles, with the lowest quartile being rural and the highest quartile being urban);
d) socioeconomic status in terms of the occupation of the male parent (rated from professional to unskilled worker, based on the occupational prestige scores of the Australian National University scale of Broom et al 1977);
e) ethnicity (defined broadly in terms of father's country of birth and categorised as born in Australia, born in another English-speaking country, and born in a non-English speaking country).

The cohort had completed reading literacy and numeracy tests in their schools at age 10 as part of the Australian Studies in Scholastic Performance (see Bourke et al 1981). In 1985, participants also completed a brief vocational interest questionnaire (Ainley et al 1994; Athanasou 2001) that categorised their interests into the six Holland (1997) career categories (Realistic, Investigative, Artistic, Social, Enterprising and Conventional). Respondents were classified subsequently in terms of their highest score on one of the six career interests.

Procedure

A follow-up mail survey was used to obtain the occupation of those who were working in 1991. The occupational status of the participants was then classified as requiring a degree, diploma or associate diploma, trade qualification or certificate, or no formal educational qualification. Cross-tabulations between the four levels of educational achievement were computed with demographic factors. This was only undertaken for those persons who were working at the time of the last follow-up survey in 1991. Analysis of variance was used to determine if there were differences in the level of literacy and numeracy recorded in 1980, when the cohort was 10 years old. The differences were tested using a non-parametric Kruskal-Wallis one-way analysis of variance on ranks because the tests of the assumptions concerning skewness and kurtosis were not satisfied.

Findings

Overall findings

In 1991 some 1258 participants responded to the follow-up survey. The educational achievements of the group were reflected in their occupational status in 1991. Just over 44% were working in an occupation that did not require a formal educational qualification (in rounded percentages: degree - 11%; diploma - 19%; certificate/trade - 26%; other - 44%). These proportions are consistent with the pattern set out in the table at the commencement of this paper for persons with a degree, but those with diploma/certificate/trade qualifications are over-represented and persons without qualification are under-represented (see Table 1).

Specific influences on educational achievement

(a) Literacy and numeracy

There were significant differences between the educational status of the four groups even in terms of their literacy (chi-square (H) =55.7, df=3, p<0.00001) and numeracy (chi-square (H) =38.4, df=3, p<0.00001) at age 10. The mean scores on literacy and numeracy for those with degrees and diplomas were higher than for those with trade certificates and other qualifications. The other qualifications group was marginally higher than the trade-certificate group for both literacy and numeracy. The reasons for this are not clear and the results are illustrated in Figure 2.

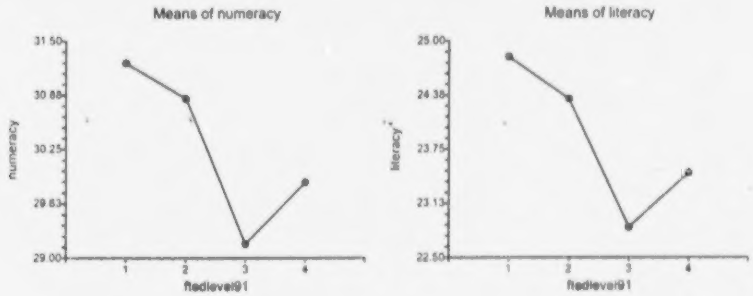


Figure 2: Plots of literacy and numeracy means scores for full-time educational level (1=degree; 2=diploma; 3=certificate-trade; 4=other)

(b) Gender

There were statistically significant differences (chi-square = 40.3, df = 3, p<0.00001) in the distribution of males (N=574) and females (N=684) across the four educational groups. The proportion of females working in occupations with a requirement for a degree was double that of males; there were more females in occupations with diplomas; less females in occupations requiring trade or certificate qualifications; and almost equal proportions in other qualifications (see Table 2).

Table 2: Cross-tabulations of qualifications with demographic factors

Qualific.	Male	Female	Yr 12	Did not finish yr 12	Urban	Rural	SES 1	SES 6	English speaking	Non-English speaking
Degree	7%	14%	16%	2%	11%	9%	12%	10%	11%	14%
Diploma	15%	22%	20%	17%	19%	16%	17%	16%	19%	13%
Trade/Cert	33%	21%	19%	37%	24%	28%	23%	35%	28%	26%
Other	46%	43%	45%	45%	47%	46%	48%	40%	42%	48%

All percentages rounded

(c) Completion of year 12

As expected, the completion of the highest level of secondary schooling ($N=726$) had a profound impact on achievement of degree and diploma qualifications (chi-square $= 70.8$, df $= 3$, $p<0.00001$) (see Table 2). The probability of someone who had not completed the highest level of secondary schooling working in an occupation requiring a degree was around 2%; and those who had not completed the highest level of secondary schooling were over-represented in the trade-certificate group (36.5%).

(d) Geographic location

The extent of rural location ($N=239$) did not have a statistically significant impact on the educational level of the occupation attained in 1991 (chi-square $= 9.7$, df $= 9$, ns). Nevertheless, there were less students from rural regions (9.2%) who achieved a degree compared with urban students (metropolitan 11.3%). On the other hand, participation in certificate-trade level occupations was higher in the rural regions. The results from only the rural and urban students are included in Table 1 for ease of presentation.

(e) Socioeconomic status

Socioeconomic status defined in terms of the father's occupation was clearly related to educational-vocational outcomes for degree and diploma levels, with the highest socioeconomic group having a higher proportion in the degree category than the lowest group. The results from only the highest and lowest socioeconomic levels are indicated in Table 2. The pattern of results differed significantly (chi-square $= 27.0$, df $= 15$, $p<0.05$) from that expected by chance, but it was not uniform. For example, participation in degree-level occupations was highest for the second socioeconomic group and participation in certificate trade-level occupations was highest for the lowest socioeconomic group.

(f) Ethnicity

The same mixed pattern of results is evident for ethnicity, with a higher proportion of students of non-English speaking backgrounds achieving at degree level (14%) than those who are Australian born and English speaking (11%). Once again, the pattern of these results was not consistent across the groups, but it varied significantly from that expected (chi-square = 21.1, df = 6, $p<0.01$).

(g) Vocational interests

The pattern of the relationship between vocational achievement and interests was complex and reflected the nature of the labour market (chi-square = 58.0, df = 15, $p<0.00001$). For instance, in line with expectations, the proportion of tradespersons certificates was highest in the Realistic category, which encompasses the technical, outdoor, manual and mechanical occupations (see Table 3). Degree qualifications were highest in the Artistic (ie creative, literary, musical) and Conventional (ie office, computational, clerical) groups. Diploma-level qualifications were highest in the Artistic and Social (ie people contact, social service) occupational categories. The highest level of persons with no qualifications were in the Enterprising (ie business, entrepreneurial, persuasive) occupations. An anomaly in the relationship between vocational interests and achievement was found in the Scientific category, which had few persons in the degree and diploma categories. In part, this may reflect the limited vocational opportunities in Australia for persons with such interests.

Table 3: Cross-tabulations of qualifications with interest categories

Qualification	Realistic	Investigative	Artistic	Social	Enterprising	Conventional
Degree	6%	8%	18%	14%	9%	18%
Diploma	14%	16%	27%	21%	17%	18%
Trade/Cert	36%	34%	14%	22%	17%	26%
Other	44%	44%	41%	42%	57%	39%

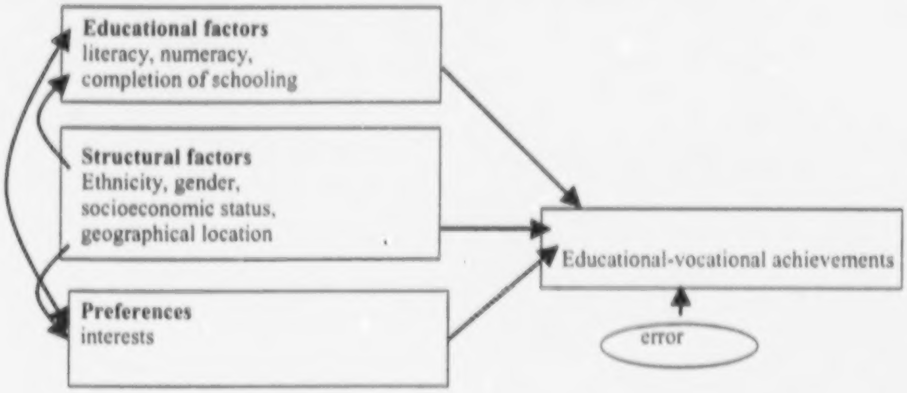
Note: All percentages are rounded

Discussion and conclusions

The variation that has been noted in educational-vocational achievements of this cohort was not random but influenced by three broad groups of factors. The first of these factors are largely beyond the control of the individual and included: gender, ethnicity, socioeconomic status and geographical location. The second group of factors were educational and included early levels of achievement in literacy and numeracy (as well as later levels of school completion). The final set of factors included the motivational influences of high school interests in vocational areas. For example, vocational education (eg apprenticeships, vocational skills) was linked to gender (male), non-completion of year 12, and a generally lower socioeconomic status and a generally higher level of Realistic interest.

There was an inevitable interaction between factors that has not been taken into account by this study. While it would have been tempting to model these influences through a causal or structural model, this was not considered valid because the factors involved are largely categorical. They do not represent quantities that can be measured precisely or in a valid manner. Nevertheless a qualitative framework can be hypothesised and this is shown in Figure 3.

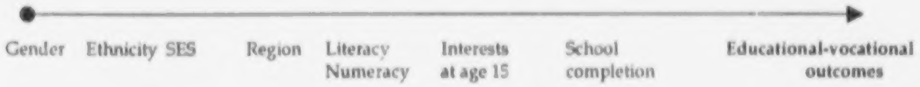
Figure 3: Factors influencing educational-vocational achievements


Educational factors
literacy, numeracy, completion of schooling
Structural factors
Ethnicity, gender, socioeconomic status, geographical location
Preferences
interests
Educational-vocational achievements
error

This model goes part of the way to accounting for the educational-vocational achievements of youth in transition, especially in the early stages of their careers. It indicates that many education and training aspects are circumscribed and compromised by one's background. In this way, it supports the contentions of Gottfredson (1996), Holland (1997) and Long et al (1999) that were described briefly at the outset. There is potential, however, for individual differences in key areas of educational achievement to influence career paths and to overcome some disadvantages. Finally, personal preferences that are expressed as career interests also exerted a strong directional force on the direction and extent of educational-vocational achievement.

Another dimension along which these factors might be plotted is that of time. Some of the factors were really quite distant from the educational-vocational achievement at age 21 years, whereas others were proximal. These can almost be plotted along a hypothetical (albeit imperfect) time dimension (see Figure 4) in which their influences accumulate over time.

Figure 4: A hypothetical time dimension for educational-vocational influences


Gender
Ethnicity SES
Region
Literacy Numeracy
Interests at age 15
School completion
Educational-vocational outcomes

One limitation of this study is that it was not dynamic and did not account for the national changes over time in educational achievement that reflect the transfer from school to work situations. For instance, it did not account for the creeping credentialism or the gradual increase in national educational achievements that was identified in Table 1. Nor was it helpful in predicting individual achievement, since it was essentially a description of how one nationally representative cohort developed. It may be possible to determine a table of probabilities that indicated the chance of obtaining a particular level of educational achievement given combinations of factors, but the potential permutations of factors would be daunting. Furthermore, the data from this study are only of historical interest and may not be indicative of the latest influences and trends in educational-vocational achievement. Nevertheless the data are important as an indicator of past achievements and represent the first analysis of this nationally representative cohort since the public release of this information.

On the basis of the information from this study, it appears that the most powerful influences on ultimate educational-vocational achievement might well be (in order of effect size): literacy, numeracy, the completion of Year 12, type of vocational interest, gender, socioeconomic status, ethnicity and rurality. From a practical perspective, there is scope to identify those persons with educational potential at a relatively early age, especially those who might otherwise be disadvantaged by their background. Secondly, it is also possible to outline educational and vocational options given the pattern of interests and educational potential of a person, in order to maximise his/her success and satisfaction. Thirdly, it seems possible to plan on a large scale for ways in which to overcome some of those factors that circumscribe educational and training outcomes of youth in transition.

Acknowledgements

I am indebted to the Australian Council for Educational Research (ACER) for making the Youth in Transition data available to me as well as allowing me to work at the ACER. Preparation of this paper was supported financially through the Research Centre for Vocational Education and Training and Australian National Training Authority.

References

Ainley J, Robinson L, Harvey-Beavis A, Elsworth G and Fleming M (1994) Subject choice in years 11 and 12. Canberra: Australian Government Publishing Service.

Athanasou J A (2001) Analysis of responses to vocational interest items: a study of Australian high school students. Journal of Career Assessment.

Australian Bureau of Statistics (1991/2000) Transition from education to work. Catalogue no 6227.0, May 1991 and May 2000.

Bourke S F, Mills J M, Stanyon J and Holzer F (1981) Performance in literacy and numeracy: 1980. Canberra: Australian Government Publishing Service.

Broom L, Duncan-Jones P, Jones F L and McDonnell P (1977) Investigating social mobility. Canberra: ANU Press.

Gottfredson, L S (1981) Circumscription and compromise: a developmental theory of occupational aspirations. Monograph. Journal of Counseling Psychology, vol 28, pp 545-579.

Gottfredson L S (1996) Gottfredson's theory of circumscription and compromise. In D Brown, L Brooks and Associates (eds) Career choice and development, third edition. San Francisco: Jossey-Bass, pp 179-232.

Holland J L (1997) Making vocational choices: a theory of vocational personalities and work environments, third edition. Odessa, FL: Psychological Assessment Resources.

Lamb S, Polesel J and Teese R (1995) 'Where do they go?' An evaluation of sources of data used for the monitoring of students' destinations and other educational outcomes in Australia. Commissioned Report no 40, National Board of Employment, Education and Training. Canberra: Australian Government Publishing Service.

Long M, Carpenter P and Hayden M (1999) Participation in education and training in Australia 1980-1994, longitudinal surveys of Australian youth. Report no 13. Melbourne: Australian Council for Educational Research.

McKenzie P (2000) Using longitudinal data for research on VET. Paper presented at the Third AVETRA Conference, Canberra.

Michell J (1999) Measurement in psychology. Critical history of a methodological concept. Cambridge: Cambridge University Press.

Contact details

James Athanasou

Email: jim.athanasou@uts.edu.au

School non-completers: outcomes in vocational education and training

Katrina Ball

National Centre for Vocational Education Research, Adelaide

Stephen Lamb

University of Melbourne*, Victoria

*The research reported in this study was conducted while the author was a Senior Research Fellow at the Australian Council for Educational Research.

Not all young people continue on at school to complete year 12. While many of those who drop out of school do not undertake any further formal education and training, others participate in further education and training, enrolling in a post-school vocational education and training (VET) course through adult and community education, state technical and further education (TAFE) systems or private providers.

School non-completers identified in the 1995 (Y95) national cohort of the Longitudinal Surveys of Australian Youth (LSAY) have been tracked annually from 1995 and their school experiences, educational attainment, and post-school participation in education, training and work have been recorded. In this study, the information collected on participation in VET from LSAY respondents has been supplemented with data from the national VET provider data collection managed by the National Centre for Vocational Education Research (NCVER).

This study examines the VET activities and achievement of school non-completers in the initial years beyond high school (roughly to age 19). Trends for school non-completers in VET between 1996 and 1998 suggest significant differences in achievement across gender, socioeconomic status and ethnicity.

This study provides information about the VET choices and progress in VET of school non-completers. The research suggests that the vocational education and training sector is playing an important role in the transition from school to working life for young people who do not remain on at school to complete year 12.

School non-completers: outcomes in vocational education and training

Despite attempts to raise school retention through increasing subject choice and initiatives such as VET in Schools, the reality is that not all young people will complete senior secondary school. It is widely recognised that non-completers experience the most difficulty in making the transition from school to productive activities in adulthood - post-school education, training and employment. This has led to particular concern over the group of young people who fail to complete school. For those who do not re-enter education and training, there are long-term costs involved for individuals, government and society. Without further education and training, school non-completers are entering the labour market with insufficient education and skills to be successful in the long term.

A key response has been to strengthen the range of education and training options available to non-completers, particularly through the expansion of VET, and to increase the incentives to participate through changes to income support arrangements for those in education and training and for those out of work. But how many non-completers take part in further education and training? What VET modules and courses do they undertake? How well do they achieve?

This study highlights the range of courses being studied by school non-completers in the VET sector and the differences in achievement according to a range of demographic factors. Understanding the VET choices and achievement of non-completers will help the development of a better understanding of the role that VET plays in providing post-school education and training for school non-completers.

Who are non-completers?

In the current study, the term 'non-completer' is used to refer to those who do not finish year 12, even if they have continued beyond the 'compulsory' years.
Other research suggests that students do not complete school for a variety of reasons. There is a group of students for whom continuing on at school has the potential to be counterproductive if it changes neutral feelings about learning into negative ones (Dwyer 1996).

These varied school non-completers will leave school at different times up to the end of year 12. They will have a variety of educational backgrounds and therefore diverse further education and training needs.

Data and method

The analyses are based on the non-completers identified in the 1995 (Y95) cohort of the Longitudinal Surveys of Australian Youth (LSAY). This data set has tracked a national cohort of year 9 students annually from 1995 and has mapped school experiences, educational attainment and post-school participation in education, training and work. The information collected from the annual Y95 follow-up survey has been matched with data from the 1996, 1997 and 1998 national VET provider data collections to develop a detailed profile of the vocational education and training experiences of non-completers. LSAY provides information on broad measures of participation in VET. The national VET provider data collections contain more detailed information on qualification, field of study, courses, module enrolments and module achievement. Together the two data sets provide extensive information on the VET experiences of non-completers from the Y95 cohort. The research results are reported in full in Ball and Lamb (forthcoming).

Results

Who participates in VET?

Details on VET participation by school non-completers are presented in Table 1. During the period they would otherwise have been at school, roughly two out of every five non-completers participated in alternative forms of education and training. Two-thirds of the VET participants were male because 42% of boys who did not complete school had participated in VET at some time before age 19 compared with only 30% of girls. Therefore, while relatively more girls than boys remained on at school, more boys than girls participated in VET at this time.

There was only a slight tendency for higher school achievers among the non-completers to participate in some form of VET. School achievement is based on literacy and numeric tests taken during year 9. Because of the differences in rates of non-completion, the lowest school achievers made up 37% of the non-completers who participated in VET compared to only 14% of high achievers.

School type was also related to participation in VET. The highest rate of participation from non-completers in VET was for those from Catholic schools. The rate - 44% - was 8 points higher than for those from government schools and 13 points higher than for young people from independent non-Catholic schools. This means that much higher percentages of young people in Catholic schools are participating in some form of further education or training during the post-compulsory years.

Young people from a non English-speaking background are more likely to complete school than those from an English-speaking background. Teenagers who did not complete school were more likely to enrol in a VET course if they had parents born in Australia rather than in another English-speaking country or in a non English-speaking country. Some 39% of all non-completers with Australian-born parents enrolled in a VET course. In comparison, 35% of non-completers with parents born in non English-speaking backgrounds and 30% of non-completers with parents born in other English-speaking countries entered a VET course.

Proportionately fewer non-completers from Indigenous backgrounds enrolled in a VET course compared to other Australians. About 28% of Indigenous non-completers enrolled in a VET course compared to 38% of non-Indigenous non-completers.

Table 1: Participation in VET of non-completers, by selected background characteristics

	Row percentages			Column percentages		
Characteristic	Did not participate in VET	Participated in VET	Total	Did not participate in VET	Participated in VET	Total
Gender						
Males	58	42	100	54	66	58
Females	70	30	100	46	34	42
Early school achievement						
Lowest	64	36	100	39	37	38
Lower middle	63	37	100	30	30	30
Upper middle	62	39	100	18	19	18
Highest	61	39	100	13	14	13
School type						
Government	64	36	100	88	86	87
Catholic	56	44	100	9	12	10
Independent non-Catholic	69	31	100	3	2	3
Ethnicity^{+++}						
Australian-born	61	39	100	84	88	85
Other-English	70	30	100	9	6	8

BEST COPY AVAILABLE

Non English-speaking	65	35	100	7	6	7
Indigenous status						
Indigenous	72	28	100	6	4	5
Non-Indigenous	62	38	100	94	96	95
Geographic location						
Urban	65	35	100	43	39	42
Regional	65	35	100	32	29	31
Rural or remote	56	44	100	24	32	27
Socioeconomic status						
Lowest	65	35	100	36	31	34
Lower middle	62	38	100	30	30	30
Upper middle	60	40	100	19	21	20
Highest	57	43	100	15	19	16
Parents' education						
Lowest (did not complete school)	69	31	100	3	2	3
Lower middle (school certificate)	64	36	100	45	42	44
Upper middle (post-school qual)	58	42	100	32	39	34
Highest (university degree)	66	34	100	21	17	19
Median household income*						
$399.50	58	42	100	23	27	25
$599.50	62	38	100	43	42	43
$849.50	66	34	100	31	26	29
$1249.50	48	52	100	3	5	4
Proximity to a TAFE institute						
Less than 2 kms	67	33	100	36	29	34
Between 2 and 10 kms	59	41	100	45	50	47
Over 10 kms	59	41	100	18	21	19
Unemployment rate of residential locality						
Less than 6 %	58	42	100	17	20	18
Between 6 and 10 %	63	37	100	46	44	45
Between 10 and 14 %	58	42	100	20	23	21
Over 14 %	66	33	100	17	13	16
Total (Sample size)				*1302*	*765*	*2067*
(%)				*63*	*37*	*100*

Living in a rural area is not an impediment to participation in VET. While rural students may complete school less often than their urban counterparts, they more often enrol in VET. The rate of participation in VET among rural and remote non-completers was 44%, compared to 35% for those in regional and urban centres.

Variations in VET participation were also linked to social background and locality. Non-completers from high socioeconomic backgrounds were more often VET participants. Despite much lower rates of non-completion, those from high socioeconomic backgrounds more often entered some form of further education and training in the initial post-school years. Non-completers from areas of high unemployment (over 15%) were less likely to participate in vocational education and training than their counterparts.

What courses are studied?

The majority of non-completers were enrolled in trade-related courses. About 12% were doing a preparatory trade course, while 31% were enrolled in a full trade course. A further 24% were enrolled in non-trade certificate courses, with one-third of this group in preparatory or qualifying certificate courses.

BEST COPY AVAILABLE

There were gender differences in the course enrolments. About 57% of boys enrolled in a trade-related course, usually at AQF level III, compared to 18% of girls. Girls were more likely to enrol in courses which teach other skills, usually at Certificate II level. About 42% of girls had enrolled in either a preparatory course which grants partial exemption to non-trade skills courses or in a recognised complete course teaching non-trade skills. The equivalent rate for boys was 15%.

About one in ten girls and boys enrolled in courses that teach either 'basic education and employment skills' or 'education preparation'. Boys tended to favour the courses providing basic education and employment skills while girls favoured the courses in education preparation.

There are differences in the courses that boys and girls enrol in depending upon whether they leave school before, or after, the start of year 11. About half of all boys who left school in year 10 or below enrolled in a complete trade course compared with a third of those who left school in year 11. Boys were more likely to enrol in a 'complete non-trade skills' course if they left school in year 11. Girls who left school in year 10 or below were more likely to enrol in 'education preparation' courses compared to girls who started senior secondary school.

There are notable differences in the field of study for girls and boys. The most popular choice of fields of study for boys were 'engineering and surveying', followed by 'architecture and building' and 'services, hospitality and transportation'. This contrasted with girls who enrolled primarily in 'services, hospitality or transportation' and 'business, administration and economics' courses.

Influences on course choice

Over half of the students who were high achievers at school and left school in year 10 or below were enrolled in 'complete trades courses', compared with only a quarter of students who had lower levels of school achievement. A further 20% of high achievers were enrolled in 'complete other skills courses'. There were no marked differences in the courses studied by teenagers who left school in year 11 by school achievement.

Proportionately more students from disadvantaged backgrounds studied 'basic education and employment skills' courses compared with students from families with a higher socioeconomic status.

Proportionately more students who were from a non English-speaking background studied 'courses which grant partial exemption to recognised trade courses' than students who were born in English-speaking countries. Proportionately fewer students from a non English-speaking background studied 'complete other skills courses' compared with students from an English-speaking background.

Almost two in five non-completers in VET living in urban areas were studying 'complete trades courses'. Less than a third of students living in regional or rural and remote localities were enrolled in these courses. A higher proportion of students who live in rural and remote localities were enrolled in 'initial vocational courses' or 'other complete skills courses' compared with students from regional or urban areas.

Achievement in VET modules

The unit of analysis for analysing VET achievement is the module, or subject, rather than the individual. The information was compiled on each module studied by a non-completer in the sample, rather than on the average outcome achieved by each student. This means that it is possible to provide estimates of the numbers and types of modules non-completers were successful in, but not the numbers of non-completers who were successful. The module outcomes identified in the national VET provider collection have been grouped into the categories of successful outcome, non-successful outcome and not yet completed.

- Successful outcome: pass and no assessment - satisfactory completion of class hours
- Non-successful outcome: fail, withdrew (failed) and withdrew (without failure)
- Not yet completed: no assessment - studies not yet completed, and result withheld.

Overall rates of success and failure

Not all non-completers are successful in their VET studies. A successful outcome was achieved in 59% of modules undertaken by non-completers, which were either passed (46%) or satisfactorily completed (13%). One in four modules (29%) did not result in a successful outcome. Approximately 17% of modules undertaken by non-completers resulted in outright failure. A further 8% were withdrawn from but with participants being recorded as having failed, and 8% of modules were withdrawn from without a failure recorded. A further 12% of modules were not completed either because the result was withheld or the studies were continuing.

Choice of course and module outcomes

There were differences in module outcomes for non-completers depending upon the type of course studied in VET. With the exception of recreational or personal enrichment courses, the results show that a slightly higher percentage of modules in trade-related courses were successfully completed by non-completers compared with modules in other types of courses. Non-successful outcomes and withdrawal from modules in trade-related courses were also lower than for other courses. A relatively low proportion of enrolments in trade-related courses resulted in a withdrawal. Conversely, a relatively high proportion of module enrolments in courses related to 'other skills' resulted in a fail grade. A high proportion of enrolments in basic skills and education preparation courses resulted in a withdrawal with a failure recorded.

Qualification category and module outcomes

The degree of difficulty of a VET course influenced the module outcomes of non-completers. Although relatively few non-completers enrolled in a diploma-level course, a high proportion of fail grades (29%) were recorded in modules at this level. Conversely, relatively high pass rates were recorded in module enrolments at AQF level III and IV or equivalent. These courses are likely to be apprenticeship courses. A high proportion of modules for courses leading to a statement of attainment resulted in a withdrawal with a fail grade recorded.

The highest pass rate was achieved in modules studied in 'other certificate courses' (71%). These courses most often include short courses providing basic education skills training and initial vocational preparation.

School attainment and module outcomes

Despite differences in course choice, students who left school in year 10 or below and students who left in year 11 were equally likely to achieve a successful outcome or an unsuccessful outcome in a VET module. However, the distribution of course results differed depending upon whether students left school before or after commencing year 11.

Gender

Overall, male non-completers are more likely than female non-completers to achieve a successful outcome in a VET module. A successful outcome was recorded in 62% of modules studied by male non-completers compared with 57% of modules studied by females. Only 27% of modules studied by male non-completers resulted in a non-successful outcome compared with 31% of modules studied by female non-completers.

There are also differences between female and male non-completers in the propensity to withdraw from a vocational education and training course. Females withdrew from a higher percentage of modules than males. Irrespective of whether or not a 'fail' grade was recorded, females were more likely than males to withdraw from their VET course.

Early school achievement

Irrespective of differences in the types of VET modules undertaken by non-completers who were high achievers in school and those who were in the lowest quartile of achievers, the proportion of modules where a successful outcome was achieved were comparable (61%) and pass rates were rather similar (about 47%).

Although the proportion of non-completers who recorded a non-successful outcome was similar across the quartiles of school achievement, module failure was higher in the modules entered by low school achievers. About 17% of the modules entered by low achievers were failed. The rate for high modules undertaken by high achievers was 14%.

Withdrawal rates were higher in modules undertaken by high achievers.

Socioeconomic status

Although lower numbers of non-completers are from families of high socioeconomic status (SES), more of them, on average, tend to record a successful outcome or a pass in their VET studies. About 63% of modules were successfully completed of all modules studied by students from the highest quartile of SES compared to 59% for those in the lowest quartile of SES, who make up the largest group of non-completers.

More striking is the difference in non-successful outcomes and failure rates. About 30% of non-completers from a low SES background recorded a non-successful outcome and non-completers from low SES backgrounds were much more likely to fail outright - 19% of modules were failed compared to 13% of modules undertaken by non-completers from high SES families.

Social background exerts an influence in terms of rates of non-completion and rates of participation in VET, and also in terms of the likelihood of achieving a successful outcome or a non-successful outcome for those undertaking VET modules.

Parents' country of birth

There was a notable difference in the proportion of non-completers who did not achieve a successful outcome from a non English-speaking background compared to other non-completers. Rates of non-successful outcomes were higher and rates of successful outcomes lower in modules undertaken by non-completers with parents from non English-speaking countries compared with students from other backgrounds. Approximately 57% of modules undertaken by non-completers from non English-speaking backgrounds were successfully completed, compared to 60% of those undertaken by other non-completers.

Module failure and withdrawal rates were higher in modules undertaken by non-completers from non English-speaking backgrounds.

Urban or rural location

There were minor differences in the rate of successful outcomes across different geographical regions. However, a higher proportion of non-completers from rural and remote localities recorded a non-successful outcome (31%) compared to other non-completers - 26% for non-completers from regional localities and 28% for those from urban areas. There was a higher rate of module failure for non-completers living in rural and remote locations than for those from urban areas - 18% of modules undertaken by non-completers in rural or remote locations; 17% in regional centres compared to 14% in urban areas.

Conclusions

The results of this analysis suggest that VET is meeting the needs of the group of non-completers who are in trade-related apprenticeships or other AQF certificate level III courses. This group of non-completers are achieving successful outcomes in the VET modules they are studying. Of concern are the groups of non-completers who were low achievers at school or are from low SES backgrounds, who are not succeeding in VET. In addition, high proportions of non-completers from these groups are not participating in VET.

These groups are the least likely to participate in VET, despite having the highest needs for education and training in order to make a successful transition to employment. For those who do engage in VET, they tend to enrol in the least demanding of courses and are the groups that are most likely to experience failure.

These results present a challenge to VET providers and practitioners as they imply that much more needs to be done to assist reluctant learners to participate and succeed in VET courses that will prepare them for the labour market. It is important that VET remains flexible and continues to provide diversity in the range of courses available to cater for the varied needs of school non-completers.

References

Dwyer P (1996) Opting out: early school leavers and the degeneration of youth policy. Melbourne: Youth Research Centre.

Ball K and Lamb S (forthcoming) Participation and achievement in VET of non-completers of school. Longitudinal Series of Australian Youth, Research Report. Melbourne: ACER.

Collaborative approaches to increasing the participation and outcomes of people with a disability in vocational education and training

Craig Harrison

Personnel Employment, Adelaide

Kate Barnett

Kate Barnett and Associates, Adelaide

Increasing participation in VET by people with disabilities

A key concern for vocational education and training (VET) policymakers is the low participation rates in VET by people with a disability. Australian Bureau of Statistics (ABS) data indicate that 15% of the working age population are known to have a disability, yet only 3.5% participate in VET and less than 2% are apprentices or trainees. Equally low levels of participation in Structured Workplace Learning programs are evident among school students with disabilities, and these students are also characterised by high rates of early school leaving.

It follows that one strategy to increase participation in VET by people with a disability involves intervention at the secondary school level - to reduce early school leaving by providing structured VET learning and work placement opportunities. The issue has been the lack of a model of good practice to achieve this outcome. Our paper presents a model that is being trialled through an action research initiative sponsored by the Enterprise Career Education Foundation.

The model is based on collaboration within and across sectors.

The initiative

ANTA's Disability Forum: *Bridging Pathways* strategy

Until recently there has been a distinct lack of collaborative efforts between the VET and disability sectors.

People from the VET sector often feel overwhelmed by the array of services provided by the disability sector, which makes it difficult to know where to start when forming collaborative networks. Conversely, people from the disability sector find the range of programs within the VET sector confusing.

From a client perspective, a number of reports within the VET sector, and more broadly across the disability services sector, have acknowledged the difficulties faced by people with a disability in trying to coordinate and navigate these services in order to undertake a VET activity. System statistics reinforce the extent of these difficulties, with participation rates and outcomes achieved by people with disabilities in the VET system being significantly below those of the wider community.

In June 2000, Australia's education and training ministers made a five-year commitment to improving opportunities for people with a disability in VET. They agreed to a national strategy and blueprint called *Bridging Pathways*, which spells out a practical road ahead to achieving better outcomes. For the first time, *Bridging Pathways* describes a VET system which recognises the diverse needs of individuals, enables training providers to accommodate these needs and supports collaboration between the VET and disability sectors.

The final document developed by the taskforce has been termed a *Blueprint* because it outlines a detailed plan of action for all of the players involved. The *Blueprint* is principally designed to overcome or remove structural inequities, whether they are legislative, administrative or resourcing practices.

An implementation taskforce was established to formulate an implementation plan for *Bridging Pathways*. The taskforce included representatives from all the groups that would be instrumental in implementing a national VET strategy. A cross-sectoral approach was taken because it was realised that some solutions may be found beyond the VET sector. VET is intrinsically linked with employment, and the lives of people with a disability are intrinsically linked with their support services. It was clear that a whole-of-government approach was needed to improve education and training opportunities for people with a disability.

The real challenge for collaboration at a systems level will lie in the implementation of the *Bridging Pathways* strategy. In order to achieve the outcomes outlined in the blueprint, four Commonwealth Departments, every State and Territory Training Authority, industry, training providers and the disability sector will need to work together.

The Enterprise Career Education Foundation *Lighthouse* initiative

In the process of developing *Bridging Pathways*, the ANTA Disability Forum worked during 1999 and 2000 with the Enterprise Career Education Foundation (ECEF) – a national organisation which is funded by DETYA to provided Structured Workplace Learning (SWL). ECEF was formerly known as the ASTF – Australian Student Traineeship Foundation. A key feature of SWL programs is that they involve structured collaboration between schools, VET providers, industry and communities.

The ECEF's *Lighthouse* initiative is a project which was implemented in 2000 and is destined for completion at the end of 2001. It has funded three projects, which are each designed to provide guidance on how to make SWL accessible and on positive vocational outcomes for students with a disability.

Interest and response was significant, with 87 proposals received from all Australian states and territories. Only three projects could be selected, and these are sponsored by:

- Central Coast Business Education Network (CCBEN) in Gosford

- Launceston Workplace Learning
- Western Adelaide Vocational and Enterprise Services (WAVES).

The model applied - the WAVES project in SA

A critical feature of each project is the formation and strengthening of partnerships or working alliances between schools, RTOs, employers, employment agencies (in particular, Competitive Employment Placement and Training - CEPT - agencies) and other organisations with expertise in managing disability. The WAVES project description below illustrates one application of the model.

Project summary

Thirty students within the western cluster of schools will be involved in a structured workplace learning and job placement program.

All students participating in the project need to have completed the Centrelink Workability tables and have a score of over 50 points. This indicates that they are eligible to receive a service from Specialist Employment Providers funded by the Department of Family and Community Services (DFaCS).

Work preparation is being provided to the participating students.

- Personnel Employment is delivering the 'Employability Skills: Becoming a Worker' course in partnership with Minda Job Placement.

- State education teachers have professional development time allocated to enable observation and evaluation of the employment preparation program.

Structured workplace learning is being provided in manufacturing and retail, including:

- a Certificate I in Metals and Engineering; and

- retail training provided by Maxima Training, with support from the City of Charles Sturt.

Job placement and support is being provided by DFaCS Specialist Employment Providers, such as Personnel Employment, with assistance from the Business Enterprise Centres - Disability Recruitment Coordination Service.

Auspicing organisation

- Western Adelaide Vocational and Enterprise Services (WAVES).

Partners

- WAVES
- Business Enterprise Centres
- Department of Education, Training and Employment (State)
- Department of Family and Community Services (Federal)

- City of Charles Sturt (local government)
- Personnel Employment
- Minda Job Placement
- South Australian Centre for Manufacturing.

In examining this collaboration, it can be seen that:

- Three levels of Government are involved, with each providing direct funding and/or other resource support.
- Industry is an active participant at both the program level and in assisting with coordination.
- Two Disability Employment services have committed to the process.

Challenges and opportunities

The challenges

A major issue to be addressed by the Blueprint is that of the coordination between the disability and VET sectors in the area of learning supports. There is currently a lack of coordination across services, and many people with a disability find it difficult to access information, coordinate services and manage their personal needs as well as study demands. Responsibility for providing supports is often not clearly defined across agencies.

Other challenges to be addressed include the following:

- Students with disabilities are more likely than other students to leave school before years 11 and 12, and to be under-represented in the VET system, which significantly disadvantages their employment options.
- CEPT agencies face significant challenges in securing long term and viable employment for their clients, and have been funded in a way which discourages them building a relationship with their clients during their secondary school years.
- Employers require specific encouragement and support to offer sustainable employment to young people with disabilities.
- Articulation between school and work is a significant issue for all young people, but particularly for those with a disability, who are most likely to leave school with little understanding of the world of work.

The opportunity

Opportunity #1: Structured Workplace Learning (SWL)

Structured Workplace Learning (SWL) and VET in Schools initiatives provide significant opportunities to enhance school-to-industry articulation and to address the problem of a lack of 'cultural fit' between the two sectors.

Partnerships between schools, RTOs and employers are vital to the success of this articulation. However, to ensure equity of opportunity for students with a disability, a fourth partner is required - one with a specialised understanding of the needs of people with a disability.

CEPT or open employment placement agencies are ideally placed to become this fourth partner, but have faced significant obstacles in becoming involved at the school level.

Opportunity #2: School-based Apprenticeships

Further opportunity for accredited VET, preparation for work and pathways to long-term employment exist in relation to School-based Apprenticeships. These can provide the required award infrastructure for CBF (see below).

CEPT agencies have traditionally received funding from the Commonwealth in block form, and under the terms of the Commonwealth State Disability Agreement (CSDA), are not supported to become involved within schools because the Agreement defines this as a State responsibility.

Opportunity #3: Case-based funding to CEPT agencies

From January 2000, case-based funding (CBF) has been trialled and this will continue until June 30, 2002. CBF is outcome-based, the outcome being a minimum of eight hours work for 26 weeks or more, for people who have been assessed by Centrelink under the WAT. This work must be structured under a sanctioned industrial award. CBF will provide for five levels of support, ranging from $3000 to $15,000 per year, and these will be determined by assessment of support needs and employment barriers.

At present, CEPTs receive block funding from DFaCS. The CBF trials are intended to explore and develop an outcomes-based funding model, with planning for a transition process between block funding and this outcomes-based model. It is most likely that they will move completely to an outcomes-based model over the next few years.

Combining the challenges with the opportunity

In South Australia, with the support of ASTF funding under the Lighthouse Initiative, WAVES (Western Area Vocational Employment Services) will trial a model that combines these challenges with the opportunities presented by CBF, SWL and School-based Apprenticeships.

The model provides for CEPT agencies to undertake these key roles:

- transfer labour market knowledge to secondary school teachers via structured in-service training and a train-the-trainer strategy. This would see teachers participating in and then delivering (as RTOs) programs like the 'Certificate of Work Education' or the classroom component of 'Becoming a Worker', and becoming accredited Workplace Trainers and Assessors (Certificate IV). This would mean that teachers would develop a clear understanding of workplace social competencies and receive a nationally recognised VET qualification to accredit this knowledge. *(The key challenge here is the need to fund Teacher Release Time. However, it is possible that ANTA funding could be sought for this purpose, given the VET outcomes involved.)*

- provide the link to employers and manage the interface between schools and industry, including working with New Apprenticeship Centres to obtain apprenticeships.

- provide individual support to students with disabilities and their families.

- act as the feedback loop between student, school and the workplace.

The CEPT role would ultimately be funded through Commonwealth outcomes-based funding (CBF), with SWL being the first component of an outcomes-based strategy, a front-end for School-based Apprenticeships.

The WAVES project will apply this strategy through these specific steps:

- Term 1 - year 10 student completes 'Becoming a Worker'.

- Term 2 - student undertakes SWL (either with Maxima or email training).

- Mid-2001 - student begins a School-based Apprenticeship.

- By the end of 2002, the student has completed or nearly completed, two years of a SBA, and is thus highly marketable. This enables the CEPT to market the student in the labour market; a relationship has been built with employers and co-workers, the student is developing informed choice about the labour market and has attained a level of work readiness and recognised qualification. The CEPT's long-term investment has a much greater chance of being rewarded through CBF than would be possible without this preparation. Given that 30% of CEPT funding is known to be spent on employment preparation, this model builds on and improves the status quo.

In the course of the ECEF Lighthouse initiative, this model will be trialled and its lessons documented.

While the model is designed specifically to meet the challenges facing students with a disability, it is highly *transferable* and holds significant promise for students who have completed SWL, assuming the required support resources are part of the overall provision. It *builds on the partnerships* which are essential to SWL and increases the likelihood of achieving *sustainable and improved outcomes* for students with a disability.

Conclusion

Patterns of school participation show that students with disabilities are more likely to leave school before years 11 and 12 - probably because of the absence of clear vocational pathways. Preventing these early leaving rates requires intervention which provides learning opportunities, support and structured work placement experience. The model presented in this paper involves Structured Workplace Learning (based on collaborative links as described), and School-based Apprenticeships leading to employment.

The success of the model is highly dependent on collaboration and the building of alliances within the VET sector and across to the community services sector. It depends on effective working relationships between industry, education, community and disability support services. However, intersectoral boundaries can present barriers and necessitate a whole-of-government approach.

The challenge for this model will be to develop such an approach so that open employment or CEPT agencies are enabled to work with students with disabilities while they are in school, despite the existing policy impediments to this. At present, they are funded to support clients who have been assessed by Centrelink and current policy precludes school students from this assessment. Effectively, CEPTs cannot be funded immediately for working within schools. However, unless CEPTs can build a long-term relationship with school-age clients, they are less likely to achieve employment outcomes when they leave school. In doing so, they can provide significant support and expert advice to schools and employers and are an integral part of the collaborative model.

Given new policy directions which link CEPT funding to employment outcomes, it is time to remove the barriers which currently inhibit their involvement.

Contact details

Kate Barnett
Email: kate@katebarnett.com.au

Searching for extended identity: the problematised role of managing people development, as illuminated by the Frontline Management Initiative

Llandis Barratt-Pugh

School of Management, Edith Cowan University, Western Australia

During the past year there has been considerable research undertaken to explore and evaluate the Frontline Management Initiative (FMI). The FMI is positioned in this text as an important initiative, because it marks the political move towards workplace learning, and provides evidence concerning the development of managing identities and the management of such workplace learning. This paper seeks to examine the FMI as a technology of identity within the discourse of enterprise, and as an instrument of the textualisation of the workplace. As such, the FMI is seen as a dichotomy; a powerful tool to promote elite representations of managing. In contrast, it creates learning spaces within which individuals extend their identity to include managing. FMI is thus positioned on the battleground for the development of manager identity. The paper concludes by identifying the diversity that is emerging from workplace practices, and indicating the critical and problematised role of people development managers as a primary future research imperative.

After the last AVETRA conference I stayed to explore Canberra, and went to the observatory. For the first time in my life I was able to see stars and other galaxies with great clarity. While I was aware of much of the associated knowledge, this was the first time I realised that what I was seeing was light that had started the journey towards me years ago, even before my birth. What I was seeing so clearly might not actually exist on that evening. It was a representation of the past. Peering into those galaxies, and back in time, prompted questions about my own identity. I was both part of something infinite and also insignificant. The concrete universe was full of illusion. These thoughts mirrored the stories of the managers in our current FMI research study (EFMI); seeking a meaningful managing identity within mixed and competing discourses. For many involved in the FMI, their experiences were like my first view through the telescope. It was the point in time when they began a complex search *for an extended identity*, that included managing.

The evidence from over 200 interviews and 500 questionnaires indicates that the FMI text has been subject to diverse interpretations (Barratt-Pugh 2000a; 2000b). Within some enterprises, the FMI appears within a discourse of flexibility, but is represented by codified national competences and regulated by managerial imperatives. Within other organisations, meaning is more defined by participants, often in a developmental partnership with wider management. Occupying the central space in the field of interpretation is the people development manager. The form that the FMI technology takes in each enterprise determines the space that is legitimised for frontline managers to enlarge their identity to include managing. This *problematises* the role of people development within the organisation, as positioned in the new pedagogic context of workplace learning. The move from ordering contracted training to developing systems of workplace learning places pressures on those individuals to re-examine their own identity and to consider integrating, a greater emphasis on strategic capacity, local knowledge formation, and identity development.

Anchored to the evidence of the FMI research, this paper will explore the significance of the changes in organisational context, where the enterprise has become the dominant societal grouping, and where language has become a regulatory tool in the change from mechanistic to cognitive workplaces. The subsequent textualisation of the workplace is analysed to present the challenges of complexity and competition that are formed by the multiplicity of local and global texts. The paper then explores how the textualised workplace has become a battleground for the production of managerial identity, and the role that FMI practices play in shaping managerial subjectivity, focusing specifically on the people development manager as a problematised being.

Positioning the FMI

In recent decades, conceptualisations of the economy serving society have been reversed. Dominant discourses based on markets and using economic metaphors have attempted to position society as the servant of economics. These discourses, operating from a *market paradigm* and valuing enterprising actors, have privileged the work organisation and begun to displace the nation state as the focal societal grouping. Ways of understanding the world that are not based on markets have had increasingly limited currency, exposure and ultimately legitimacy. It was into such an environment that the FMI was dispersed in the late 1990s.

Du Gay (1996) suggests that this representation of the economy as the prime societal driver has embedded *enterprise* relationships deep into the social fabric. It is this discourse of enterprise globalisation that has problematised organisational life for employees - and more importantly in terms of our study - frontline and people development managers. Previously regulated in time and space (Legge 1995), the supposedly freed workplace actors are now asked to become *entrepreneurs for the organisation*. While they engage in a struggle to develop this new required work identity, managers are also positioned to regulate this production of identity. Payne (2000) suggests that the communities within enterprises organise, while this new enterprise capitalism actually disorganises.

The parent text for the FMI, the *Enterprising nation* (1995), may seem an overt servant for such a discourse, but one that also values diverse subjectivity and reflexivity. The report, (1995, pp 167, 169) is based on the development of a 'new enterprise culture' and implicitly supports 'a proactive entrepreneurial approach'. However, the text is clearly critical of the previous processes of identity production and managerial identity. In terms of management identity, the report discusses a 'changing paradigm of management and management learning', regarding:

> Skills previously thought of as soft ... [eg] vision, the ability to communicate, managing diversity in the workplace, engendering innovation, managing change.
>
> ... a shift from traditional definitions, to one of team leader, coach and mentor. (Karpin 1995, pp 263, 40)

In terms of learning, the text (1995, p 263) notes that 'the term management learning is not widely used, and that there is an 'overemphasis on current rather than future skills''. The report (1995, p 263) makes a clear statement that values the benefits of 'learning from experience' and the value of diversity.

The parent text of the FMI is a key political component of the discourse of enterprise within Australian business and the development of enterprising manager identity. The text is, however, *critical* of past managerial identity and attitudes to learning, seeking to displace formal education with a learning technology based on the reflection of workplace activity. Ironically, it is the flexibility of such a framework that enables more sense making and partnership in communities of practice, but unfortunately also allows enterprises to regulate learning and identity development, determining what learning is legitimate. It is in this latter situation that managers, positioned as human resources, are subject to identity development in a similar resource-based, or acquisitional way. Their development is focused on acquiring predetermined patterns of being or self, and value adding them to existing identity, with little space for individual reflexive processes. The language telegraphs the form of subsequent processes.

Rhodes (2000) supports Legge's perspective that language derived from economic and knowledge-based disciplines has developed as a dominant way of defining individual subjectivity in contemporary organisations; a symbolic violence in supplanting the original meaning. Positioning workers as *human resources* by management prerogative constrains the opportunity and space for them to reflexively examine and adapt their own workplace and managerial identities.

The textualisation of the enterprise

> So it's taken it from having nothing to now having ... policy and procedure manuals, fitness testing manuals, simple things like time sheets check lists, feed back sheets the whole regular run of the mill.
> (Frontline manager, EFMI)

Underlying the political change from an ordering and regulating management to an enterprising management is the change in the nature of work. The move from a physical workplace towards a *cognitive workplace* has meant that organising, as a controlling agenda, has had to seek new methods of regulating workplace activity and production. This has mediated organisational practices to move from ordering workplaces spatially and temporally, to ordering workplace text consumption and production. A consequence of this development is the textualisation of the workplace, where time clocks are replaced with performance management systems. The FMI is a significant text in terms of the regulation of workplace development and the textualisation of the work environment.

Gee (1996) asserts that language has become the primary tool of organisational control, ordering the knowledge production in the cognitive workplace, producing identity and access to networks. Knowledge work and workers are primarily engaged in the production of identity. The management response has been to develop a textualised management. This managerialism codifies not just boundaries and direction, but stages of processes. Corporate managerialism with quality instruments creates an invisible linguistic electric fence, reinforcing the enterprise culture and encouraging self-governance, self-regulation and - most importantly in the FMI context - self-development. In textualising processes, or at least the parts of the processes that can be textualised, organisational relationships and identities are bypassed. The heart of the production is redefined by the *codification*.

But like language, the practices of the workplace are more than a set of rules for production; they are a way of relating and sharing meaning. Greater understanding is grounded in shared perceptual stimulations. Gee (1996) views such textualisation as a managerial control mechanism that excludes the community of workplace practice, and provides a pervasive system of regulation for the knowledge workers where empowerment is the new hegemony. It is a 'generalised form of governance, where knowing and acting are medicated by texts, and literate practices are the dominant means of exercising power and achieving conformance' (Jackson 2000).

For frontline managers positioned between competing cultures, meaning lies somewhere between symbolic management texts and the complexity of substantive workplace relationships. As Iedema (2000) indicates, 'more and more work is talk ... knowledge as practice'. Frontline managers are confronted with manuals and procedures with augmented status - scripts to be read and enacted. The regulation of workplace practices demands the comprehension and interpretation of *complex texts*, and the cognitive capacity to resolve the ambiguities between such regulatory texts and current workplace practices.

The FMI kit, both by quantity of text and by using the exclusive language of competency-based training, is an example of the textualisation of the frontline manager identity. But is it positioned as a regulatory text, designed to achieve conformance and replace local managing knowledges? The FMI provides competencies; idealised, externalised, codified representations of enterprising management. However, it also indicates space to ground the learning processes in workplace experience and practice. If the filters of textualisation have removed the complex interactivity of practice, abstracting a generalised representation of managing, then here is the opportunity to re-examine and define individual identity within workplace community practices.

This dynamic tension between *global and local knowledges* reflects the shift from culturally concentrated knowledge (Gibbons et al 1994) to more transient socially distributed knowledge, because ultimately, the value of knowledge is determined by its performativity and not universal acceptance (Lyotard 1994). It is the prerogative of enterprise management, as the dominant discourse mediating the outcomes of the FMI, to place value on either of these knowledge components, competencies or local processes, according to subjectivity. *The political positioning* of the FMI as either a repository of knowledge, or as a framework for developing identity and local knowledges - where knowing is a social act of a specific context and of a particular time - will determine the subsequent diversity of organisational knowledge.

The FMI on a battlefield of representation, subjectivity and production

> (The FMI) Forces you to focus on what you are doing, look at how you manage and learn. (Frontline manager, EFMI)

Luke (1995) suggests that current management, organisational and social conflicts are about *representation and subjectivity*. These conflicts are about representation, because the new predominantly cognitive workplace is textualised, and concerned with what texts are produced and what texts are consumed. They are also about subjectivity, because identity and self are constructed by the way that individuals are 'named, positioned, described and desired' with such texts. It is a battlefield because, as Wallace (2000) suggests, 'it is these discursive practices that classify, characterise, observe, monitor, shape and control behaviour'.

How we are represented will influence and may determine how we behave. Control of workplace texts gives control of overrepresentation and therefore subsequent identity and subjectivity. So while the textualisation of the workplace problematises the organisational environment for managers through complex filtered scripting, and by privileging expert knowledges, it also provides the mechanism by which *identity can be moulded and subjectivity influenced*. It is the fluid framework of the FMI that enables management to make such Orwellian choices about which additional texts are attached to the framework, and how they position frontline managers and their role.

For many, work has become knowledge production. Knowing is a legitimate part of workplace activity where learning, once a peripheral activity, is now the core activity. Learning *is* production. Rhodes (2000) emphasises that in the contemporary workplace there really is nothing of an objective physical nature being produced. The primary impact of workplace activity is no longer on the body but on cognitive processing, where 'work is mediated through textual and not physical means'. Learning and knowledge production at work becomes a *commodity* in itself, not just a means of self-development. The fusion of leaning and work production has significant implications for development processes. As the organisation continues to strive for control over production and commodity development, it has to consider how to best align the knowledge and identity of managers and other actors with organisational goals, by regulating the texts that are consumed and the legitimacy of the texts that are.produced.

Management discourses of best practice, flexibility and excellence provide a non-coercive technology of work, which shapes dispositions and behaviours (Harrison 2000). They are also technologies of self, constraining learning and shaping an enterprising, subjective being with autonomous responsibility (Fenwick 2000). This 'pastoral governance' encourages individuals to invest their identities in subjectivities and desires within 'knowledgable' discourses (Harrison 2000). To obtain the security of 'fitting in with' mainstream identity, individuals become 'produced' subjects. The quality control of mechanical production is displaced by *textual control of cognitive production*. The dynamics of human agency shape workplace texts, perceptions of knowing and ultimately worker subjectivity (Fenwick 2000). As the organisation is increasingly involved in the construction of idealised globalised working identity, the only legitimate subjectivity within the organisation is one where people are defined by such terms (Harrison 2000). Identity and self are regulated, positioned and defined by the organisation to the extent that this identity is carried beyond both the location of the workplace and the time of work, creating a 7/24 being (seven days a week, 24 hours a day).

Positioned in this context, the FMI is a textual tool that can be woven within and between related management discourses to shape organisational meaning. Frontline managers exist in a textualised environment where learning has become production - and production identity. Their own identities, and subsequently that of their working communities, are being shaped by their FMI experiences.

Struggling to incorporate managerial identity

> Now I see jobs differently. (Frontline manager, EFMI)

More than 20,000 FMI manager participants have been placed at the interface between the understanding of local community and managerial texts. They are positioned as continual learners, extending their identities in a seamless enterprising environment of *limitless postponements*, where there is no final goal (Deleuze 1992).

> I'm a lot more confident that I'm doing the right things (Frontline manager, EFMI)
>
> The [FMI] guys ... are seen to have ownership of their job and ownership of improvements and everything else, they get more of a communication flow between the two groups. (Frontline manager, EFMI)
>
> ... but, I'm guessing that it's probably not because of FMI that those things have actually changed, it's probably more likely the other way that FMI has made it easier for the managers to do it. (Frontline manager, EFMI)

Participants may have previously held the *name* manager; now they are positioned to develop that identity. Clegg and Hardy (1996, p 685) indicate that,

> Identity is a complex multifaceted and transient construct; to appreciate that individuals have multiple identities; that identities intersect to create an amalgamated identity. That identities are socially, historically, culturally, and organisationally constructed and subject to contradiction, revision, and change.

The FMI is just one of many influences designed to develop workplace identity, which may form a unified discourse or competing discourses, seeking to influence individual subjectivity. Olsen (2000) defines work identity as 'subjective assigning of meaning'. How a frontline manager sees the workplace environment is the result of a range of organisational discourses, and builds upon existing identity to produce a *new subjectivity*. The resulting identity becomes a 'subjective structural component' of the organisational societal context, with significant opportunity to mediate the development of local workplace community culture. If 'self' is a negotiable entity (Sheeres 2000), who holds the power in the processes of FMI negotiation?

Jorgensen (2000) suggests that the negotiation space consists of three intricately interwoven competing discourses. The resulting self or *Habitus* of the frontline manager can be seen as an embodied experience formed by the local informal communities of work, the organisational political communities that contest terrain to assert power of definition, and cultural communities or lifeworlds. It is little wonder that the tales of the FMI are ones of diversity, where there are as many FMIs as there are participants. The evidence from the research project indicates that the intention to create a fluid learning technology has been realised. *Diversity is the most evident characteristic.* However, it is equally evident that the market environment has often privileged accreditation above reflexivity, and that developmental models of the FMI do not dominate the national landscape. Adherence to unified texts and the production of diverse subjects coexist on the battleground.

> I told her … maybe you shouldn't try to do it all by Christmas … It's not about ticking the boxes … you are going to miss out on the learning. (Trainer, EFMI)

Tenant (2000) suggests that the attraction of conforming to a management-prescribed subjectivity is an all too attractive proposition.

> … high value is placed on locating oneself within a shared understanding which despite recognition of notions of difference and diversity is more often than not a singular new corporate culture.

Jackson (2000) supports this argument, agreeing that textual mediation is a pervasive form of governance to mobilise these self-governing practitioners. In contrast however, Casey (1996) suggests that such constructions of workplace identity lack complete identity, because they do not account for *spirituality* and offer no revitalisation of the organic self. More sustainable cultures, identities and workplace identities need to be extended to include a spiritual dimension that is not just a cultural addition. Conforming to a prescribed workplace subjectivity is an inadequate platform to develop a *gestalt* identity. This positions identity as an implausible subject of managerial re-engineering that can be codified and textually distributed - as identity is processual, and subjectivity is a social production. It is the *social practices* of the FMI that develop; that culturally mediate new management meaning and new ways of coping - not solely the texts. This extension of managerial identity is more than 'learning' new ways or finding new meaning; it is also about developing the technology of the self, and how this new self-image will be propagated and policed (Devos 2000).

> … my 360 degree survey was very interesting. This highlighted some areas that obviously I needed to work on … (Frontline manager, EFMI)

Current evidence suggests that such complex interaction does not take place in isolated, distant, brief or constrained learning opportunities. Without interactive learning space, participants do not achieve an integrated and *extended identity*. Limited interaction and coercive managerial discourses achieve little more than a value-added management identity, which can be discarded following accreditation.

The research evidence indicates that *discourses of partnership*, if substantive rather than symbolic, provide learning space. Rhodes (2000) indicates the inadequacies of 'dominant discourses on selfhood', which in contrast are liable to 'shape and delimit our context of the preferred self'. Dialogue, choice and self-reflection are practices that enable the re-examination of emerging identity and the related relationships. However, such processes of reflexivity are not individually but socially determined, and the practices of the FMI are ultimately determined by those *responsible for people development* within the organisation.

The problematised role of people development

Orchestrating identity development from within the organisational framework is therefore an onerous task. As the first significant competency-based, workplace-located training initiative within the more 'open' Australian training market, the FMI provides interesting data to illuminate how structures of learning are developing within the new industry-led and industry-located system. The move from training to learning - and from ways of doing to ways of thinking - positions people development managers as problematised beings. Scaffolded by national packages, and resourced by management strategy, the people development manager (PDM) is subject to dual discourses of regulation.

In the analysis of the external market, Seddon (2000) discusses the construction of *pedagogic agency;* the fusion and management of pedagogy. Similar reconfigurations and capacity building are also occurring within organisations, as externalised knowledge acquisition is replaced with internal shaping and production of identity. The pedagogic context in which PDMs work has been radically reconfigured. Seddon, rephrasing Lusted (1986), has described pedagogic work as a set of moral transactions; a process of production and exchange between agencies. PDMs have to negotiate with groups both within and interfacing with the organisation to create a pedagogic process of exchange, where knowledge is co-produced and identity extended (Connell 1995).

> You know on the phone … my most usual response is *I don't know - what do you think?* (PDM, EFMI)
>
> I'd like your honest opinion … are we on a hiding to nothing … doing it like this. (PDM, EFMI)

It is a complex process that PDMs are asked to create, develop and protect, often with limited organisational power, and often with only symbolic managerial support. The FMI participants struggle to give some discursive shape and develop new meaning from the interactive processes they experience, but they need support *to link their local sequences of action* into a wider organisational discourse (Daly and Mjelde 2000). PDMs are therefore required to discursively negotiate with different discourse communities to facilitate this process, and prevent dominant and privileged subjectivities acting to define self and identity. The PDM role is positioned to protect the negotiation of frontline manager identity, protect partnership, and reject the discursive positioning of subjectivity by regulating the reading and enacting of scripts.

> [The] mediation of meaning between the individual learner and the "real" environment is a social act which, through language, abstracts the "universal character" of an object or discourse and establishes it socially as a real object, a real thing recognised as such by many communicating actors. (Smith 1996, p 370 - paraphrasing Mead 1938)

As Jackson (2000) suggests, the *protector of the process* needs to ensure that they 'are subject to, but not the subjects of, the workplace texts they aim to create'. As *discourse* *technologists*, they develop knowledge as a local achievement through textually mediated social action and bridge the meaning of reified knowledge within local communities (Farrell 2000, paraphrasing Fairclough).

Mulcahy (2000) views the FMI as both a technology of knowledge, defining what managing is; and a technology of representation - defining how managers should manage. PDMs determine to what extent this encoded knowledge displaces the encultured knowledge of the workplace. In the more developmental models of the FMI, learning spaces may develop where participants are able to *contest the meaning* of abstract representative competencies with their own real world experience. Where these learning spaces are protected, the reciprocity between the texts and community practices creates new meaning and extends identity. Mulcahy quotes Law (2000) to assert that the resulting knowledge is a located societal enactment; 'knowing is a relational moment or an effect, not a substance'.

> … so corporate weren't going to get involved ... but when the managers started talking about what they were doing out there … there was a quick move … to get involved in it. (Coordinator, EFMI)

As discourse technologist and protector of a complex pedagogic process, the PDM is an agent who embodies the contradiction that exists between workplace realities and the regulating texts of management identity. The PDM has been positioned as the mediator of multiple discourses through: mediation of the hegemony of a competence framework with local knowledge construction; the enterprise-led move to a training market; the shift to organisations as the location of learning; the introduction of the specific focus on management identity and soft skills development; the focus on people as the key to competitive advantage; the broader context of work as the production of identity; and the move to a learning technology with national framework and local interpretation. This *orchestrates the production of identity* and displaces previous pedagogic institution. The PDM is thus positioned in a critical and problematised identity extending space.

Conclusion: a critical future research focus

There has been a political shift towards workplace-based learning as the organisation has been politically positioned to take on social power and produce identity. While the inadequacies of the traditional educational model are evident in the current context, the emergence of enterprise-directed learning processes, such as the FMI, have immediate implications for organisational actors, as they are asked to reinvent identity, and adapt subjectivity as a cyclic responsibility. By either supporting more managerial agendas, or in trying to create reflexive learning spaces, PDMs are positioned in a *problematised* space.

The position and practice of the FMI illustrates how systems of governance that have traditionally regulated the educational institution, constructed a supportive agency and developed pedagogic capacity, are now bypassed. Where traditional educators are involved, they operate in changed locations and relationships, dependent on enterprise benefactors. PDMs are asked *to mediate the discourses* of the FMI and package texts, managerial imperatives, workplace community cultures and pedagogic workers. From this complexity emerges the extended identities of the frontline managers.

The evidence from the research project indicates that managers responsible for people development play a critical role in determining which discourses shape the learning structures of the organisation, and what social process emerges to extend frontline manager identity. It is these organisational practices and emerging identities that will subsequently shape a wide range of workplace learning processes and be positioned to shape subsequent identities. Rather like the novice at the telescope confronted with the complexity of the universe, support and community may be necessary to find new meaning. As the workplace develops as a pedagogic agency, the critical and problematised role of managing people development is illuminated as a primary *future research focus*.

Notes

The project to evaluate the FMI is funded by NREC-NCVER and involves a team from six universities in Australia: Professor Geoff Soutar (UWA); Professor Catherine Smith (Murdoch University); Associate Professor Colin Sharp (Flinders University); and Associate Professor Trevor Williams (Queensland University of Technology). The final report was drafted in March 2001.

References

Barratt-Pugh L G B (2000a) Ordering or adaptive technology? Tales from the practice of the Frontline Management Initiative. Proceedings of Learning Together Working Together, 8th International Post Compulsory Education and Training Conference, Surfers Paradise. Griffith University, Brisbane Queensland: Australian Academic Press.

Barratt-Pugh L G B (2000b) The frontline of third order learning or a familiar façade? Evaluating the Frontline Management Initiative. Australian Vocational Education Review, vol 7, no 1, pp 22-38.

Bourdieu P (1990) The logic of practice (Trans: R Nice). Cambridge: Polity Press.

Casey C (1995) Work, self and society: after industrialism. London: Routledge.

Clegg SR and Hardy C (1996) Representations. In S R Clegg, C Hardy and W R Nord (eds) Handbook of organisation studies. London: Sage, pp 676-708.

Connell R W (1995) Education as transformative work. In M Ginsberg (ed) The politics and culture of educators work. Bergin.

Daly R and Mjelde L (2000) Learning at the point of production. Proceedings of Working Knowledge: Productive Learning at Work. Sydney, New South Wales: UTS-RAVEL.

Deleuze G (1992) Postscript on the society of control. Organisational Studies, vol 59, October, pp 3-7.

Devos A (2000) Productive learning or technologies of government. Paper presented at Working Knowledge: Productive Learning at Work, UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Du Gay P (1996) Consumption and identity at work. London: Sage.

Farrell L (2000) Ways of doing, ways of being: language, education and working identities. Language and Education, vol 14, no 1, pp 18-36.

Fenwick T (2000) Work knowing on the fly; co-emergent ephistemologies in post-corporate enterprise cultures. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales.

Gee J P, Hull G and Lankshear C (1996) The new work order; behind the language of new capitalism. Sydney: Allen and Unwin.

Gibbons M, Limoges C, Nowotny H, Schwartzman S, Scott P and Trow M (1994) The new production of knowledge: the dynamics of science and research in contemporary societies. London: Sage.

Harrison R (2000) Fuzzy boundaries and flexibility in FE. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales.

Iedema R and Sheeres H (2000) Doctors, factory workers and researchers. Paper presented at Working Knowledge: Productive Learning at Work, UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Jackson N (2000) Writing-up people at work: investigations of workplace literacy. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Jorgensen C H (2000) Workplace learning and learning environments. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Karpin D (1995, April) Enterprising nation: the report of the industry task force on leadership and management skills. Canberra: Australian Government Publishing Service.

Law J (2000) Comments on Suchman, Gherardi and Nicolini, knowing as displacing. Organisation, vol 7, no 2, pp 349-354.

Legge K (1995) Human resource management: rhetorics and realities. London: Routledge.

Luke A (1995) Text and discourse in education. Review of Research in Education, vol 21, pp 3-48.

Lyotard J-F (1984) The postmodern condition. Manchester: Manchester University Press.

Lusted D (1986) Introduction - why pedagogy. Screen, vol 27, no 5, pp 2-15.

Mead G H (1938) The philosophy of the act. In C W Morris (ed) Chicago: University of Chicago Press.

Mulcahy D (2000) Working knowledge in management and medicine tales of technology and ontology. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Olsen S H (2000) Professional identity as learning processes in life histories. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Payne J (2000) Local perspectives on globalisation and learning. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Rhodes C and Garrick J (2000) Research and knowledge at work. London and New York: Routledge.

Seddon T (2000) Working knowledge for new educational landscapes. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Smith D E (1996) Telling the truth after postmodernism. Symbolic Interaction, vol 19, no 3, pp 171-202.

Tennant M (2000) Reworking knowledge; pedagogies or organisational change. Paper presented at Working Knowledge: Productive Learning at Work, UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Wallace M (2000) The more things change: workplace training and gender power relations. Proceedings of Working Knowledge: Productive Learning at Work. UTS-RAVEL, Sydney, New South Wales, 10-13 December.

Contact details

Llandis Barratt-Pugh
School of Management, Edith Cowan University
Pearson St, Churchlands
Western Australia 6018
Ph: +61 8 9273 8775
Email: l.barratt_pugh@ecu.edu.au

Bringing research and policy development together – the Department of Education, Training and Youth Affairs (DETYA) Research Fellowship Scheme

Susan Baxter
Department of Education, Training and Youth Affairs
and
Nicola Yelland
School and Early Childhood Education, RMIT University

The Department of Education, Training and Youth Affairs (DETYA) is committed to strengthening its links with the research community, as a means of improving its policy analysis and development, and of promoting external research into the major issues for the Education, Training and Youth Affairs Portfolio. The DETYA Research Fellowship Scheme (RFS) brings members of the research community to work within DETYA for six to twelve months, to exchange ideas and expertise and assist in the process of translating research findings into policy.

Since it started in 1999, the RFS has proved to be highly beneficial for DETYA. Benefits also flow to fellows – as well as undertaking a major research study, there is the opportunity to gain access to departmental resources, information and data collections, and an understanding of the policy process and how the department operates.

Each year DETYA identifies the priority areas it wishes to address with research fellowships. Applications for 2002 fellowships will be invited in July 2001, and the department is very keen to encourage senior researchers in the VET field to apply. This presentation and paper describes:

- the purpose and operation of the Research Fellowship Scheme;
- the fellowship experiences of a recent DETYA Research Fellow; and
- how to apply for a fellowship for 2002.

Workplace affordances and individual engagement at work

Stephen Billett

School of Vocational, Technology and Arts Education, Griffith University, Queensland

This paper discusses factors that influence how learning in workplaces proceeds. It focuses on the dual considerations of how workplaces afford opportunities for learning and how individuals elect to engage in activities and with the guidance provided by the workplace. Together, these dual bases for coparticipation at work, and the relations between them, are central to the kinds of learning that workplaces are able to provide. Accordingly, the readiness of the workplace to afford opportunities for individuals to engage in work activities and enjoy the benefits of both direct and indirect support is a key determinant of the quality of learning in workplaces.

Affording workplace learning

How workplaces afford opportunities for learning, and how individuals elect to engage in activities and with the support and guidance provided by the workplace, is central to understanding workplaces as learning environments. These dual bases for participation at work - coparticipation - and the relations between them, are held to be central to understanding the kinds of learning that workplaces provide. In particular, the workplace's readiness to afford opportunities for individuals to engage in work activities and direct and indirect support is a key determinant of the quality of learning. These affordances are salient to the outcomes of both structured workplace learning arrangements, such as mentoring, as well as learning accessed through everyday participation at work.

Discussions of enterprise readiness are supported through the findings of an investigation of guided learning in five workplaces (Billett et al 1998). It was found that guided learning strategies (modelling, coaching, questioning, analogies and diagrams) augmented learning through everyday work activities. However, across the enterprises in this study, there were differences in the use of guided learning strategies and their perceived value. Factors such as variations in enterprise size, activities and goals did not fully explain these differences. Instead, the salience of the enterprises' readiness to afford activities and guidance was identified.

Overall, it seems that those learners afforded the richest opportunities for participation reported the strongest development. Readiness is more than the preparedness for guided learning to proceed. It includes the norms and work practices that constitute the invitational qualities for workers to participate in and learn through work. The degree by which workplaces provide rich learning outcomes through everyday activities and intentional interventions will be determined, at least in part, by their readiness to afford opportunities and support for learning.

Participation in work and learning

There is no separation between participation in work and learning (Lave 1993). Work activities, the workplace, other workers and observing and listening are consistently reported as key sources for workers to learn their vocational activities through work (Billett 1999a). The moment-by-moment learning or microgenetic development (Rogoff 1990; 1995) occurring through work is shaped by the activities individuals engage in, the direct guidance they access and the indirect contributions provided by the physical and social environment of the workplace. Work activities act to reinforce, refine or generate new forms of knowledge. This kind of ongoing learning is analogous to what Piaget (1966) referred to as accommodation and assimilation.

Consequently, learning through work can be understood in terms of the affordances that support or inhibit individuals' engagement in work. These affordances are constituted in work practices. Beyond judgements of individuals' competence, opportunities to participate are distributed on bases including race (Hull 1997), gender (Tam 1997), worker or employment status, workplace hierarchies (Darrah 1996, 1997), workplace demarcations (Bernhardt 1999; Billett 1995; Danford 1998), personal relations, workplace cliques and affiliations (Billett 1999b). Whose participation is encouraged or inhibited is a central concern for understanding and enacting workplace learning.

Of course, workplaces are contested environments. The availability of opportunities to participate is the source of contestation between: 'newcomers' or 'old-timers' (Lave and Wenger 1991); full- or part-time workers (Bernhardt 1999); teams with different roles and standing in the workplace (Darrah 1996; Hull 1997); individuals' personal and vocational goals (Darrah 1997); or among institutionalised arrangements such as those representing workers, supervisors or management (Danford 1998). Contingent workers - part-time and contractual - may struggle to be afforded opportunities to participate in the ways available to full-time employees. For example, part-time women workers have difficulty in maintaining the currency of their skills and in realising career aspirations (Tam 1997).

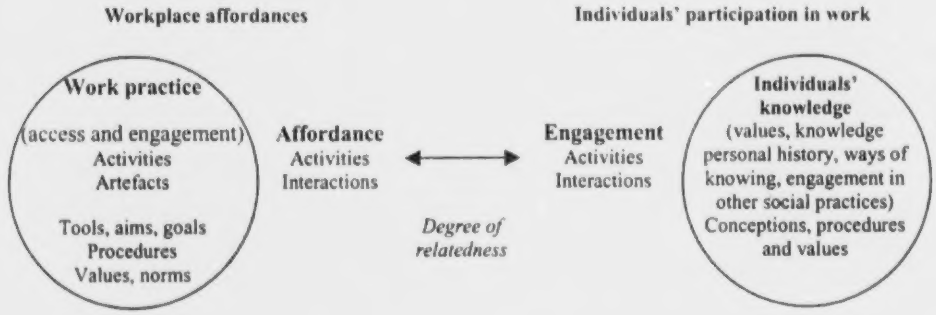
Opportunities for learning are distributed on the basis of perceptions of workers' worth and status. Lower status workers may be denied the affordances enjoyed by high status workers (Darrah 1996). Affiliations and demarcations within the workplace also constitute bases to distribute opportunities. In one instance, plant operators in an amalgamated union invited fellow plant workers to access training and practice while restricting opportunities to other workers in the same union (Billett 1995). Personal affiliations in workplaces also determine participation and how coworkers' efforts are acknowledged. The concern is that participation in work tasks and therefore opportunities for learning are distributed asymmetrically. Individuals' ability to access and observe coworkers, and workplace processes, assist in developing competence in work activities. Therefore, how individuals can access both familiar and new work tasks, and interact with coworkers (particularly more experienced workers), will influence their learning.

However, while acknowledging the salience of contributions afforded by workplaces, how individuals' elect to engage with workplace activities and guidance also determines the quality of their learning. Learning new knowledge (ie concepts about work, procedures to undertake tasks or attitudes towards work) is effortful and refining the knowledge previously learnt is mediated by individuals' existing knowledge, including their values about where and to which activities they should direct their energies. Therefore, engagement in work activities does not lead to unquestioned participation or learning of what is afforded by the workplace. Individuals are active agents in what and how they learn from these encounters (Engestrom and Middleton 1996).

However, it would be mistaken to ignore the role of human agency. Wertsch (1998) distinguishes between mastery and appropriation. The former is the superficial acceptance of knowledge coupled with the ability to satisfy the requirements for public performance. The unenthusiastic use of standard salutations by supermarket checkout operators and airline cabin crews are illustrations of mastery. Appropriation is the acceptance by the individual of what they are learning and their desire to make it part of their own repertoire of understandings, procedures and beliefs (Luria 1976). Whether appropriation and mastery result is the product of individuals' life histories and is negotiated through encounters such as those in the workplace.

Figure 1 depicts the dual bases for coparticipation at work. The affordances that workplaces can provide and the outcomes arising from that participation are represented in the left-hand circle. On the right-hand side are the bases for individuals' engagement and outcomes.

Figure 1: Coparticipation at work


Workplace affordances
Individuals' participation in work
Work practice
(access and engagement)
Activities
Artefacts
Tools, aims, goals
Procedures
Values, norms
Affordance
Activities
Interactions
Degree of relatedness
Engagement
Activities
Interactions
Individuals' knowledge
(values, knowledge personal history, ways of knowing, engagement in other social practices)
Conceptions, procedures and values

Coparticipation at work

The findings of an investigation of learning in the workplace are useful in considering coparticipation at work (Billett et al 1998). This investigation examined the efficacy of the contributions of both the 'unintended' (ie everyday activities, observing and listening, other workers, the workplace) - referred to as the 'learning curriculum' (Lave 1990) - and intended guided learning strategies (ie modelling, coaching, analogies, diagrams, questioning) to learning the knowledge required for work performance.

The data gathering procedures included monthly interviews over a six-month period, to elicit learners' accounts of recently undertaken workplace tasks. Learners were asked about whom or what had helped them complete these tasks or what they needed more of in order to complete tasks. Throughout the investigation, the researchers also made notes about each of the workplaces and how the provision of workplace learning was manifested in each setting.

The findings overviewed here are drawn from three workplaces, providing comparisons across and within workplaces about how they afforded participation in work activities. Healthylife[1] is a large food manufacturer, with a history of in-house training. Workers in many areas of the plant were quite familiar with work-based programs. Albany Textiles is a large textile manufacturing company. It has a highly demarcated workforce and hierarchical organisational structure, with little in the way of in-house training having occurred in the manufacturing plant at the time of the investigation. Powerup is a recently corporatised, public sector power distribution company. At the time of the project it was settling into its new corporate structure and role. The employees of this company were either based in the head office or located across the regions to which the company distributed electricity.

While the findings do not directly inform about how other factors (eg gender, language, division of labour and affiliations) shape participation, they contribute to understanding the process of and consequences for participation at work and learning through that participation.

Overall, it was found that where the affordances were rich, the reported learning outcomes associated with working knowledge were generally higher than where this support was not forthcoming. Yet, there were instances where individual actions work against the norms of the workplace. At Healthylife, the product development area was highly invitational for learning, and accepted and appreciated as such by the learners. These affordances included the mentors' intent to provide the most effective level of guided learning, supported by an environment which was open to constructive interactions. Here, concerns about preparation were focused on how to best use the strategies to make workplace learning more effective. The mentors used the strategies in combination and in ways that allow them to merge. This is seen as the desirable outcome; intentional learning strategies being used and accepted as part of everyday practice in the workplace.

In contrast, the highly invitational qualities of this workplace were seemingly rejected by a reluctant participant; a new recruit in the occupational health and safety area. His reluctance to engage with the workplace and his dismissal of the mentor and the guided learning strategies were quite distinct. He most valued contributions that excluded the mentor. In these ways, one work area illustrates how the affordances of the workplace-supported learning (as reported by the mentors and learners), whereas in another work area, an individual's decision not to engage in the work practice demonstrated that invitational qualities alone cannot guarantee rich learning outcomes.

Whereas Healthylife provided an instance of an individual resisting engagement in the guided learning and the work practice, Albany Textiles provides a case where the opposite was true. Despite the low level of support and readiness for guided learning and low levels of reported outcomes, one mentor, against the norms of practice, provided high levels of support that was both appreciated by and instrumental for the two learners concerned, thereby making the workplace supportive and invitational. These learners stated that the learning process had opened up possibilities, thereby emphasising an important emancipatory role for workplaces in providing opportunities for those for whom there is no option other than to learn in the workplace. Finally, with Power Up, one individual struggled and persisted when other coworkers withdrew from the workplace learning arrangements that the work environment was not ready for or committed to.

These findings indicate the potential of individual agency to offset some of the limitations of an environment whose affordance is weak, and to determine what constitutes an invitation to participate. Also, the degree of workplace readiness influences how activities and support are afforded as part of everyday work activities. The data indicate that the openness and support for learning also influence the learning occurring through everyday workplace activities. Realising the full potential of learning at these work sites, particularly the mentoring process, is unlikely to be fulfilled without careful scene-setting and thorough preparation.

In some ways, these findings are commonsensical; the kinds of opportunities provided for learners will be important for the quality of learning that transpires. Equally, how individuals engage in work practice will determine how and what they learn. Nevertheless, these factors may be overlooked if the links between engaging in thinking and acting at work and learning through those actions is not fully understood. Also, establishing a workplace training system, without understanding the bases of participation, is likely to lead to disappointment for both workers and enterprises.

The identification of these relations and their consequences for learning have three important conceptual implications. Firstly, a current area of deliberation within constructivist theory is to understand the relations between individuals and social practice. Here, it is shown that rather than being a mere element of social practice (eg Hutchins 1991), individual agency operates both interdependently and independently in social practices, as Engestrom and Middleton (1996) suggest. However, this agency manifests itself in a different ways. While there is evidence of interdependence, there are also examples of individuals acting independently in ways inconsistent with the norms and practices of the work practice. This is not to propose a shift back to individualistic psychological analyses. Instead, the socially-derived personal histories (ontogenies) of individuals, with their values and ways of knowing, mediate how they participate and learn in social practice, eg in workplaces. Relations between ontogenies and social practice determine participation. The kinds of coparticipation at work identified in the three enterprises begin to indicate the diversity of how relations between the individual and social practice shape individuals' participation and learning.

Secondly, the findings emphasise that individuals' participation at work is not passive or unquestioning. Even when support is forthcoming - that is, the workplace is highly invitational - individuals may elect not to participate in the goal-directed activities effortfully, accept the support available or appropriate the knowledge that is made accessible to them. Individuals need to find meaning in their activities and worth in what is afforded for them to participate and appropriate.

Coal miners, for instance, were skeptical of work safety training that they believed was aimed to transfer the responsibility of safe working practices from the mine management to the miners (Billett 1995). Equally, when workers believed the enterprise focus was too strong in their college-based course, they withdrew their commitment, claiming their needs and aspirations went beyond the company's goals and procedures represented in the course (Billett and Hayes 2000).

However, individual independence cannot be merely categorised as positive or negative. Darrah (1997) has vividly depicted how inconsistencies between the values of the workplaces and those of the workers lead to a rejection of work practices not acceptable to workers. Indeed, as Hodges (1998) has shown, rather than identifying with the values and practices of the workplace, participation can lead to a dis-identification with those values and practices. At Healthylife, the new occupational health and safety (OH&S) officer might have been more competent than his mentor and had something special to contribute to the OH&S policies within the workplace. This suggests different kinds of invitational qualities are required, such as those able to engage reluctant participants and enable them to find meaning or participate in ways that permit them to transform and/or contest existing values and practices or find meaning in participation.

Thirdly, in so far as they can offer access to important vocational knowledge, it is important that workplaces are highly invitational. The findings suggest that where support is available, workplaces can facilitate the learning of the hard-to-learn knowledge required for vocational practice. It seems that for workplace learning to proceed effectively, how workers are afforded opportunities to participate and are supported in this endeavor will shape the prospect of rich learning outcomes.

Summary

In sum, the guided learning strategies trialed in the five workplaces demonstrated that when they are used frequently, and in ways supportive of the work tasks individuals are engaged in, such individuals can develop much of the knowledge required for workplace performance. These strategies augment the contributions provided by everyday participation at work. However, underpinning both of these kinds of contributions is coparticipation; ie how the workplace affords opportunities for individuals to engage in and be supported in learning in the workplace.

Accordingly, to improve workplace learning, there is a need for (i) appropriate development and implementation of workplace environments that are invitational; (ii) a tailoring of the workplace learning curriculum to particular enterprise needs, including the readiness of both the learners and the guides; (iii) encouraging participation by both those who are learning and those guiding the learning; and (iv) the appropriate selection and preparation of the learning guides. These kinds of measures seem to offer some foundations upon which workplaces can become effective sites for the development of the kinds of knowledge that would benefit both those workplaces and the individuals who work in them.

Notes

1. The names of the three enterprises referred to here are fictitious.

Acknowledgements

Thanks to Andrew McCann and Kerrie Scott for research assistance in the investigation referred to above; to the enterprises and their staff who participated; and the Australian National Training Authority who funded this investigation.

References

Bernhardt A (1999) The future of low-wage jobs: case studies in the retail industry. Institute on Education and the Economy, working paper no 10, March.

Billett S and Hayes S (2000) Meeting the demand: the needs of vocational education and training clients. Adelaide: National Centre for Vocational Education Research (ISBN 0 87397 589 8).

Billett S (2000) Co-participation at work: knowing and working knowledge. Working Knowledge Conference, University of Sydney, December.

Billett S (1999a) Guided learning in the workplace. In D Boud and J Garrick (eds) Understanding learning at work. London: Routledge.

Billett S (1999b) Work as social practice: activities and interdependencies. Seventh Annual International Conference on Post-compulsory Education and Training - Changing practice through research: changing research through practice, vol 2, pp 128-138. Surfers Paradise Park Royal, Gold Coast, Queensland, Australia, 6-8 December.

Billett S (1995) Skill formation in three central Queensland coal mines: reflections on implementation and prospects for the future. Centre for Research into Employment and Work, Griffith University, Brisbane, Australia.

Billett S, McCann A and Scott K (1998) Workplace mentoring: organising and managing effective practice. Centre for Learning and Work Research, Griffith University (ISBN 0868579149).

Danford A (1998) Teamworking and labour regulation in the autocomponents industry. Work, Employment and Society, vol 12, no 3, pp 409-431.

Darrah C (1997) Complicating the concept of skill requirements: scenes from a workplace. In G Hull (ed) Changing work, changing workers: critical perspectives on language, literacy and skills. New York: State University of New York Press, pp 249-272.

Darrah C N (1996) Learning and work: an exploration in industrial ethnography. New York: Garland Publishing.

Engestrom Y and Middleton D (1996) Introduction: studying work as mindful practice. In Y Engestrom and D Middleton (eds) Cognition and communication at work. Cambridge: Cambridge University Press, pp 1-15.

Hodges D C (1998) Participation as dis-identification with/in a community of practice. Mind, Culture and Activity, vol 5, no 4, 272-290.

Hull G (1997) Preface/introduction. In G Hull (ed) Changing work, changing workers: critical perspectives on language, literacy and skills. New York: State University of New York Press.

Hutchins E (1991) The social organization of distributed cognition. In L B Resnick, J M Levine and S D Teasley (eds) Perspectives on socially shared cognition. Washington DC: American Psychological Association, pp 283-307.

Lave J (1993) The practice of learning. In S Chaiklin and J Lave (eds) Understanding practice: perspectives on activity and context. Cambridge, UK: Cambridge University Press, pp 3-32.

Lave J (1990) The culture of acquisition and the practice of understanding. In J W Stigler, R A Shweder and G Herdt (eds) Cultural psychology. Cambridge: Cambridge University Press, pp 259-286.

Lave J and Wenger E (1991) Situated learning - legitimate peripheral participation. Cambridge: Cambridge University Press.

Luria A R (1976) Cognitive development: its cultural and social foundations. Cambridge: Harvard University Press.

Piaget J (1966) Psychology of intelligence. Totowa, New Jersey: Littlefield, Adam and Co.

Rogoff B (1995) Observing sociocultural activities on three planes: participatory appropriation, guided appropriation and apprenticeship. In J V Wertsch, P Del Rio and A Alverez (eds) Sociocultural studies of the mind. Cambridge University Press, Cambridge, pp 139-164.

Rogoff B (1990) Apprenticeship in thinking - cognitive development in social context. New York: Oxford University Press.

Tam M (1997) Part-time employment: a bridge or a trap? Brookfield, USA: Aldershot.

Wertsch J W (1998) Mind as action. New York: Oxford University Press.

Contact details

Stephen Billett
School of Vocational, Technology and Arts Education
Mt Gravatt Campus, Griffith University
Nathan, Queensland 4111
Ph: +61 7 387 55855
Fax: +61 7 387 56868
Email: S.Billett@mailbox.gu.edu.au

Training Package implementation: innovative and flexible approaches

Dave Meyers and Kaaren Blom

CURVE (Centre Undertaking Research in Vocational Education), Canberra Institute of Technology, Australian Capital Territory

Note: This project is a work in progress and the following comments and observations should be regarded as initial thoughts only. The findings will be more fully developed during the process of writing the project report.

This paper reports on the preliminary findings from a National Research and Evaluation Committee (NREC) funded study on the implementation of Training Packages (TPs). The purpose of the study is to examine the extent to which new and flexible approaches to learning, training delivery and assessment have been used in the implementation of TPs.

The paper will discuss the models of implementation being adopted, potential barriers, stakeholder acceptance of new strategies and successful strategies and interventions.

Definitions

The flexibility in TPs is expressed in:

- the range of qualifications and the flexibility within package rules for the qualification;
- the flexibility and generic nature of Range of Variable and Evidence Guide statements within units of competency; and
- the limited detail and generic nature of the guidelines for delivery and assessment.

Flexibility in

> …Training Package implementation requires teacher/trainers to identify and document which qualifications they intend to offer, what learning strategies, teaching programs and assessment approaches they will use, what resources will be needed for delivery and assessment and how/where these will be obtained. (Senate Committee 2000)

> An **innovation** is an idea, practice or object that is perceived as new by the individual or other unit of adoption. It matters little whether the idea is "objectively" new as measured by the lapse of time since its first use or discovery. If the idea seems new to the individual, it is an innovation. (Rogers 1983)

The following are seen as important operational elements of **innovation**.

Customer focus - All innovation should be focused on creating value for the customer. Understanding of their needs is one of the best stimulators of new possibilities.
Creativity - Everything starts from an idea and the best way to get a great idea is to generate a lot of possibilities.
Communication - Open communication of information, ideas and feelings is the lifeblood of innovation.
Collaboration - Innovation is a group process. It feeds on interaction, information and the power of teams.
(Innovative Network, www.thinksmart.com)

Background to the project

The project was initially intended to document examples of 'best practice' in TP implementation; however, it became evident after initial research that many TPs were still in the early stages of implementation and that insufficient time had elapsed since the introduction of TPs for best practice models to have fully developed. It was therefore decided that it would be more useful for the project to focus on documentation of innovative and flexible approaches to delivery and assessment of TPs.

Scope of the project

The researchers were aware at the time of drafting of the project proposal that the Department of Training and Employment in Western Australia was already conducting a study on behalf of the Australian National Training Authority (ANTA) which was focused on traditional trade areas entitled 'Alternate pathways to AQF Certificate III Qualifications in Trade Occupations'. Therefore, they proposed a complementary study to research ways in which TPs were being implemented in non-traditional trade areas in other states.

The project proposed single case studies of innovative RTOs located in New South Wales, the Australian Capital Territory, Victoria and South Australia, and two case studies in Queensland.

Categories of RTO selected for the case studies include an enterprise-based RTO, a community-based RTO, institutional public RTOs and a smaller scale public RTO. The focus for these RTOs is variable. Some focus on assessment-only operations, which is mostly assessment-only but has some training provision, while the public RTOs engage in delivery and assessment activities. Also, some RTOs focus on delivery and assessment of competencies within a single TP, while others deliver training and assessment in over 30 different TPs.

Given the diverse nature of the RTOs included, it follows that there are quite different constraints and considerations involved according to the individual charter of the RTOs.

For instance, assessment-only RTOs which assess under a single TP need much less infrastructure and have simpler administrative structures than those required by institutional RTOs. As a consequence, their capacity for innovation and flexibility may be enhanced but at the expense of having the capacity to provide comprehensive training across a diverse range of TPs.

Candidate selection

Information regarding potential candidates for case studies was gained by consultation with approximately 20 state and national ITABS, and informally through technical and further education (TAFE) networks. This consultation process with ITABs yielded approximately 20 potential case studies that were then ranked according to the following selection criteria. A final group of six candidates was then selected.

Selection criteria for case studies	
Employ a flexible approach to learning, delivery and assessment	Endorsement by ITAB/STA
Employ non-traditional areas of delivery/assessment	Broad range of TPs
Include an example of an Institute-wide approach	VET in Schools component
Include an example of collaboration	Regional / remote area servicing
Must be sufficiently established to allow adequate documentation	Include a full on-job delivery/assessment model

Profile of the six case studies

Sydney Opera House (SOH)(New South Wales)

This is an enterprise-based Registered Training Organisation (RTO) which provides qualifications in the Entertainment Training Package (ETP) mainly, but also provides other training, including Certificate IV in Assessment and Workplace Training. In their role as mainly an assessment-only RTO, they have a collaborative approach to working with members of the entertainment industry. They focus on servicing training needs in areas where workers have high levels of technical skill, but low levels of formal qualifications due to the absence of a formal qualifications framework for this industry sector in the past.

The initial focus has been on full on-job Recognition of Current Competency (RCC). SOH use a holistic approach to the assessment of competency, whereby a range of competencies are assessed in discussion format, rather than using a checklist approach to assess individual competencies.

A flexible approach to qualifications is also used. The ETP allows learners to specialise in areas such as lighting and sound. Although a worker may be employed as a lighting technician, many smaller organisations do not engage in the full range of activities or do not have the full range of equipment to enable workers to gain competence in all the competencies listed in the Certificate IV in Entertainment (Lighting). SOH overcomes this problem by allowing workers to complete the competencies they can from the Lighting specialisation and then to select elements from other ETP streams to make up enough points to complete a Certificate IV in Entertainment (General).

SOH has worked with the Civic Theatre Newcastle using the RCC process to give workers qualifications in the ETP and has also provided integrated training and assessment to qualify them as Workplace Assessors. These people are now using their qualifications to facilitate a VET in Schools program in the Hunter region.

Colac Adult Training Support Service (Victoria)

This is a community-based RTO which delivers a range of training including the Disability Worker Stream within the Community Services TP. It is a recent winner of the Victorian Community Services and Health (State ITB) award for having an established learning culture.

This is an assessment-only RTO mainly, with an emphasis on RCC for existing workers. They also do some training delivery and assessment. They use an innovative and flexible approach to assessment. Action learning is used in the workplace to support the development of competence. Work tasks are programmed to allow staff to gain experience which is later used as part of their evidence of competency. For example, programming and chairing of staff meetings is rotated to allow a range of staff to gain experience. Professional development activities are also mapped to Training Package competencies to provide staff with experience which can then be used in the RCC process. For instance, staff are encouraged to take on a facilitation and delivery role for sessions at their regional conference. This experience is later used as evidence of competence.

The Outlook (Queensland)

This is a public RTO which now delivers the Outdoor Recreation TP. The Outlook engages in both training and assessment. They have a long history of non-accredited training delivery in the outdoor recreation area prior to the advent of TPs. Once the decision was taken to deliver training using the Outdoor Recreation TP, The Outlook used an innovative approach to form a team of people with the appropriate qualifications for delivery and assessment under the TP. The existing staff had extensive experience working in the area and believed that they could demonstrate that they were competent in most of the competencies listed in the TP, so an external industry panel was then formed. This panel conducted assessments of staff members against the competencies in the Training Package and guided the staff through the process to eventual completion of the Certificate IV in Outdoor Recreation. Staff from The Outlook have also completed Workplace Trainer and Assessor qualifications.

Once The Outlook had completed credentialing its own staff in the competencies in the Outdoor Recreation TP, its members shifted their focus to external organisations. This RTO now provides training and assessment in outdoor recreation for a broad range of community service agencies. About 120 staff from community agencies have completed training with The Outlook. About 70 of these trained staff have subsequently been registered to bring service agency clients to the Outlook site and to use the facilities as part of their early intervention services strategy. The intention is to work with the clients at a personal development level using the experiential learning model rather than on the completion of whole qualifications, although clients may in the process complete some, or even all of the competencies in the Outdoor Recreation Training Package, if appropriate to their needs.

After some experience, it has become evident that to effectively service the needs of their clients, the service agency workers need a broader range of competencies than those available in the Outdoor Recreation Training package. The Outlook has responded flexibly to this need by developing an innovative Certificate IV in Program Development and Facilitation which comprises competencies from the Community Services TP as well as from the Outdoor Recreation TP. It is proposed that community service agency workers will select appropriate competencies, and after participation in residentials and completion of workplace projects, will be assessed for competence. It is expected that this qualification will better equip community service agency workers with the mix of skills required to work effectively with their particular client group.

Southern Queensland Institute of Technology (SQIT) – Toowoomba College (Queensland)

This is a public RTO which delivers training and assessment in a broad range of TPs. The delivery of the Horticulture TP has been selected to showcase flexible and innovative delivery strategies that can be used to service the training needs of learners in remote communities. SQIT provides training to about one third of the area of Queensland, with learners being located quite remote from Toowoomba. For instance, some learners are located 900 km west of Brisbane.

Opportunities for direct face-to-face training in this situation are obviously limited, so a distance education model was adopted which involves traditional elements such as mail outs of reading materials complemented with effective use of information technology. Video conferencing and web-based video streaming are central features of this strategy.

Formal contact between learners and staff from SQIT occurs at least six times each year. Contact includes twice-yearly student attendance at workshops in Toowoomba and on-site visits by SQIT staff to learners in remote areas, supplemented by phone, fax and email contact. This 'pastoral care' strategy is considered essential to improving ultimate completion rates for remote area learners.

The workshops in Toowoomba are flexibly structured according to the requirements of the learners. There is no set structure or format; rather, each workshop is structured to cover the competencies required by the learner group attending.

Regency Institute of TAFE – Regency Annexe (South Australia)

This is a public RTO which delivers training and assessment in a broad range of TPs. The focus for this case study is on the delivery of the Children's Services stream of the Community Services TP and the use of Learning Centres as an innovative way to deliver the training.

Regency Institute uses multiple pathways for learners to complete qualifications in a flexible fashion and according to their particular needs. They have an established history of servicing the training needs of clients in northern Adelaide as well as remote area training, including Aboriginal and other communities, in the northern part of the state using a traditional distance education model. They also train people in workplaces and make extensive use of the RCC process for these experienced workers.

They have in the past used traditional work placement for campus-based learners who do not have a workplace. This involved students completing theoretical components of their course on campus then doing a block placement in a child care centre. Regency staff would visit these students for about one hour per week and complete a holistic on-job assessment of each student's performance.

It was decided, as part of the implementation strategy for TPs, that the placement system was inadequate. It was considered that there was less of a theoretical component underpinning competencies in the TP and that every competency had a practical component which had to be addressed individually. Students therefore needed to spend more time in the workplace, and more time was required for assessment. Staff from the Regency Institute wanted to ensure that the approach they adopted for the implementation of the Training Package had the approval of industry. It was therefore decided to hold workshops with industry representatives with the aim of jointly developing the implementation strategy. These workshops resulted in the Learning Centre concept. The distinguishing feature of Learning Centres is the placement of six students per centre with two students assigned to the care of infants, two students assigned to care for toddlers and two students to care for babies. The students work in the centres two days per week for a semester. A Regency Institute facilitator attends the Learning Centre for six hours per week and provides training and assessment for the students.

This system is seen as having several advantages over the old system, where students and facilitators spent less time in child care centres and more time on campus at Regency Institute. Employers have commented that it is better for parents and children for the students to be on site more often, as they become familiar faces in the centres. Also, the links and communication channels between TAFE facilitators and centre staff are strengthened by the increased time that TAFE facilitators are spending out in the centres.

Canberra Institute of Technology (CIT) (Australian Capital Territory)

This is a public RTO which delivers training and assessment in a broad range of TPs. CIT has set up a comprehensive institute-wide implementation strategy.

This has included the following elements:

- A program of professional development for teachers using TPs, involving information dissemination seminars and formal action learning groups which worked to solve implementation issues within faculties and then disseminated their findings across the whole institute.

- Involvement in public forums for industry and public/private training providers.

- Participation in a virtual forum which provided the opportunity for a broad range of stakeholders including industry representatives, training providers, ITAB members and STA representatives to discuss a range of issues online.

- Extensive curriculum development to ensure that TP competencies became the central focus for all training activities, while allowing value-adding by identification of a strong framework in which delivery of underpinning skills and knowledge could occur.

- Major modification of existing student information management and record keeping systems to accommodate direct recording of competencies from TPs as well as recording modular outcomes.

- Fostering of collaborative arrangements with an emphasis on moving training on-job where appropriate.

- Creation of a TPs hotlink on the CIT website, which linked to information about TPs and provided a virtual workspace in which major aspects of the professional development project were conducted.

Recurrent themes

- All the organisations documented in the case studies have used innovative and flexible approaches to delivery and assessment of TPs.

- The needs of learners have been the central focus for the framing of processes.

- Providers who have had previous experience with competency-based training and assessment have commented that this has assisted them with the uptake of TPs.

- Most providers were using multiple pathways to qualifications and including a mix of on-job and off-job training and assessment strategies.

- Extensive use has been made of RCC for existing workers and recognition of prior learning (RPL) where learners have done previous relevant studies in the subject area.

- A mix of traditional and flexible delivery strategies have been used.

- Collaboration and close liaison with industry has allowed providers to access valuable enterprise resources for training.

- There are many non-traditional type trainers, as well as learners, involved with TPs, some of whom were not participating in older-style training models.

Emerging questions

The researchers have observed a broad range of approaches to assessment of competence and gained the impression that it is possible that quite different standards for assessment are possibly being applied by assessors, depending on the sort of RTO they represent and the client group with which they are working.

How consistent is the level of assessment expertise across RTOs and are assessments conducted with equivalent rigour across all sectors and client groups in the VET system?

The type of evidence required for demonstration of competence and the process for evidence gathering also appears to be quite variable.

How consistent is the quality of the evidence gathered by RTOs and is it valid to assess multiple competencies within the one assessment event without providing discrete evidence of competence for each individual competency being assessed?

Some RTOs have initially focused on assessment for RCC of existing workers. They have been able to do this with very little infrastructure for delivery of training and without extensive other training resources. It is possible that the pent-up demand for RCC will eventually dissipate, and assessment-only providers will need to shift their emphasis to delivery of training.

How sustainable are RTOs who have been primarily engaged in RCC and who lack resources for delivery of training?

Some of the providers interviewed raised the question of how to ensure consistency in interpretation of standards across different providers and different geographical regions, and suggested that there is a need for moderation processes to occur.

How and when should a moderation process be implemented to check for consistency in assessment under TPs?

Initial observations

It appears to be critically important to have a 'driver' who takes ultimate responsibility for the oversight of implementation of TPs either at the level of single TP implementation or at an institution-wide level.

These 'drivers' need systemic and management support if the success of the implementation is to be sustained.

Other initial observations:

- The use of a team approach increases the likelihood of successful implementation.
- Many of the people interviewed were dynamic individuals who were engaging in innovative and flexible training strategies prior to the introduction of TPs, and while TPs have for some provided a useful vehicle to further develop these strategies, they can be given only some of the credit for the outcomes.
- Benefits are commonly observed to flow on to a broader range of people than simply those receiving the initial training; other stakeholders are affected by these concentric circles of benefit.

- Positive outcomes cannot be sustained in the absence of ongoing funding. Professional development, infrastructure upgrades and development of training and assessment resources all require financial support.

Contacts

Canberra Institute of Technology
http://www.cit.act.edu.au

Southern Queensland Institute of Technology (SQIT)
http://www.sqit.tafe.net/

Regency Institute of TAFE
http://www.regency.tafe.sa.edu.au/front.html

The Outlook - see Recreational Training Queensland (ITAB)
http://www.rtq.com.au/home.htm

Sydney Opera House
http://www.soh.nsw.gov.au/

Colac Adult Training Support Service (part of ACE)
http://www.colacace.com.au/

Innovative Network
www.thinksmart.com

References

Rogers E M (1983) Diffusion of innovations. New York: Free Press.

Senate Employment, Workplace Relations, Small Business and Education References Committee (2000) Aspiring to excellence: report into the quality of vocational education and training in Australia. Commonwealth of Australia.

Contact details

Dave Meyers and Kaaren Blom
CURVE (Centre Undertaking Research in Vocational Education)
Canberra Institute of Technology
GPO Box 826, Canberra City
Australian Capital Territory 2601
Email: dave.meyers@cit.act.edu.au

How institutions respond to Training Packages

Andrew Boorman

Department of Education, Training and Employment, Adelaide

Project objectives

The objectives of this project are to examine the impact of the transition to Training Packages on institutionally based training, specifically:

1. To identify the impact of Training Packages on institutionally based training programs for clients who are not in relevant employment.
2. To identify the policy implications arising from any changes to training and assessment arrangements for Registered Training Organisations (RTOs) and the implications for industry in their participation in skill formation for new industry entrants.
3. To research and promote strategies used by RTOs to enable clients who do not have access to relevant employment to gain a Training Package qualification.

Definition of institutionally based training

For the purpose of this study, institutional pathways are training and assessment arrangements managed by an RTO, or an organisation under its auspices, that enable a learner who is not in employment, or employment relevant to their learning, to achieve in part or full, a nationally recognised vocational qualification. These training and assessment arrangements may involve some form of work placement that is managed directly or, indirectly, by the RTO.

This definition includes VET in Schools and distance or flexible delivery training arrangements for students who are not in relevant employment. New Apprentices and Trainees, and students who are in employment directly related to their area of study, are not covered by this project.

Project stance

A national reference group, comprising representatives of public and private training organisations, State Training Authorities, national ITABs, the Australian Education Union and the Australian National Training Authority (ANTA), is guiding this project.

At its first meeting, the group agreed to examine the impact of Training Packages on institutionally based training pathways with a view to *ensuring that this pathway continues to be a valued and credible approach to achieving national vocational qualifications.*

The national reference group adopted this 'stance' to emphasise the importance of institutionally based training to clients in the VET system. In 1999, over 30% of students enrolled in either Training Packages or accredited courses were either not in the labour force or unemployed (National Centre for Vocational Education Research (NCVER) unpublished enrolment data 1999). In addition, an estimated further 20% of VET students are employed, but not in an occupation or industry relevant to the qualification they are completing (Estimated from data in the NCVER 1999 Student Outcomes Survey).

Project methods

The project used two methods to gather information. These were:

1. Case studies

14 case studies of RTOs delivering qualifications to institutionally based students in seven different Training Packages were documented. The Training Packages selected were Administration, Beauty Therapy, Community Services, Horticulture, Hospitality, Retail and Information Technology.

It is important to note that the project did not specifically seek 'best practice' delivery of Training Packages. In most cases, selected RTOs were informally endorsed, either through the State Training Authority, central office (in the case of TAFE), or the State ITAB as being suitable for a case study. Accordingly, the case studies present a snapshot of how RTOs are grappling with the delivery of Training Packages for institutionally based students.

2. Workshops

To broaden the information gathered for the project, a total of eight workshops were conducted in city and regional areas. The workshops were held in Townsville, Brisbane, Newcastle, Sydney, Canberra, Melbourne, Bendigo and Adelaide. Invitations were sent to State Training Authorities, TAFE Institutes, ACPET members and National and State ITABs. A total of 276 participants attended. Sixteen attendees were from ITABs and fourteen from private RTOs. The remainder were from TAFE institutes or departments.

In addition to the workshops, the project manager met with a number of State and Territory Training Authority staff on an individual or small group basis.

Project products

This project will produce:

1. a set of guidance materials for RTOs on some of the issues for delivering institutionally based training for Training Package qualifications. These materials will draw from the experiences of RTOs in the 14 documented case studies, each of which will also be included in full as an appendix to the guidance materials.

2. a report to ANTA on the findings of the project and recommendations for improving access to Training Package qualifications through institutionally based training.

Project findings

Context for the findings

In considering the findings of this project, it needs to be borne in mind that each industry and Training Package has its own particular issues that are influenced by:

- The extent of change from national curriculum-based qualifications to the new qualifications in each Training Package.
- The period of time elapsed since endorsement and hence opportunity for implementation.
- The extent and culture of vocational training in the industry concerned before Training Package implementation.
- The adaptability of the qualifications in the Training Package to existing educational processes and administrative systems.

Not all issues raised through the project concerned the Training Package product, but rather the funding and administrative systems and the training culture of the industry within which each RTO operates.

The range of responses and questions raised at the workshops indicate that the implementation of Training Packages still has a long way to go in terms of understanding and acceptance. Although attention is being given to professional development and communication, more needs to be done.

The impact of Training Packages on institutionally based training

In the case studies from this project, the transition from accredited courses to qualifications in Training Packages has impacted on training programs, facilities and equipment and relationships with industry. The extent of change has ranged from fine tuning to wholesale changes to the way training is structured and delivered.

In large part, the extent of change seems to be determined by the nature of the Training Package and its relationship to the superseded curriculum. Thus, RTOs delivering the Horticulture, Information Technology and Community Services Training Packages needed to make significant changes to their training programs. RTOs delivering the Administration, Beauty Therapy, Hospitality, and Retail Training Packages did not need to make such radical changes.

RTOs have invested in facilities and equipment to provide industry realistic training and assessment environments. For example, these include network engineering laboratories, upgraded training restaurants, practice offices and a workroom replicating an aged care facility. For many of the RTOs, the transition to Training Packages has strengthened their relationships with local industry. RTOs are also reporting good employment outcomes for graduates from their institutionally based courses. However, Training Packages have raised issues for institutionally based delivery and these are discussed below.

Is employment necessary to achieve a Training Package qualification?

In 1999, ANTA staff examined the documentation for all Training Packages endorsed at that time to determine how many competencies and qualifications were prescribed as only being achieved through assessment in the workplace. Thirty-seven units of competence were identified in this category. However, while this number is low in relation to the total number of endorsed units, trainers participating at the workshops for this project were clearly of the view that there are many more units and qualifications for which it is problematic to develop competence without access to a workplace.

The reasons for this include:

- Lack of resources to simulate workplace conditions.
- The range and complexity of the units of competence.
- Employment or experience in the industry being judged as essential for the development of competence and the collection of evidence for assessment.
- Industry advice that a period of employment and assessment in the workplace is a requirement of the qualification.

Table 1 below indicates the periods of employment or work placement required in each of the 14 case studies. Four of the ten RTOs offering a diploma-level qualification required students to find employment to complete their qualification. All of these RTOs reported that once students enrol in the course, they are able to find suitable employment to be undertaken concurrently with the course. Employment was not required for students to complete any of the Certificate III qualifications.

Table 1: Employment and work placement in 14 case studies of delivery of qualifications in Training Packages by RTOs

Training Package case study	**Qualification**	**Employment**		**Work placement**	
		Period (weeks)	Assessed for qual'n	Period (weeks)	Assessed for qual'n
Administration case study 1	Diploma	no	n/a	1	no - only attendance
Administration case study 2	Diploma	no	n/a	1 day/wk over 30 weeks	yes
Beauty Therapy case study 1	Diploma	no	n/a	yes	no - only attendance
Beauty Therapy case study 2	Diploma	no	n/a	yes	no

Community Services case study 1*	Certificate III	no	n/a	2 weeks	yes
	Certificate IV/Dip	yes*	yes	n/a	
Community Services case study 2	Certificate IV	no	n/a	4-5	yes
Horticulture case study 1	Certificate III	no	n/a		
	Certificate IV/Dip	yes*	yes		
Horticulture case study 2	Diploma	no	n/a		
Hospitality case study 1	Diploma	20 part time	yes	no	no
Hospitality case study 2	Diploma	20	yes	no	no
Information Technol'y case study 1	Dip Software	no	n/a	no	n/a
	Dip Neworks	no	n/a	yes	
Retail case study 1	Certificate II and III	no	n/a	yes	yes
School case study 1	Certificate II	no	n/a		
School case study 2	Statement of Attainment	no	n/a		

* In these qualifications, the RTO requires students to be employed in the industry.

Assessing competence in institutionally based training programs

Interpreting the definition of competence

In all workshops and case studies, participants discussed the definition of competence and its application in interpreting competency standards. Questions that RTOs asked include:

- Can the competencies be developed in a simulated environment in the RTO facilities?
- What opportunities for practice are required to reach the performance standard required in a workplace?
- Is a period of employment or work placement required, and if so, for which competencies and for what duration?

Many participants queried whether competence is a standard of performance '… for employment' or, '… in employment?' The accepted definition of competence for vocational training clearly indicates that competence is the ability to perform in a workplace context.

To illustrate this issue, consider the extent of employment that is usually required for trade-based apprenticeships and recognition. What level of skill maturity is necessary for competence in other occupations? If the approach taken with trades were to be applied to other occupations, it is difficult to conceive how qualifications could be achieved without employment. Alternatively, if aspects of competence such as skill maturity are recognised as principally the province of employment rather than vocational training, there is scope for institutionally based training to deliver competency outcomes.

Assessment methods used in institutionally based training

RTOs delivering institutionally based training are using a variety of assessment methods. These methods include:

- Observation of performance in work placement and in workplace simulations, such as in-house training facilities and community-based projects and scenarios and role plays.
- Indirect evidence gathered through assignments, tests, and workplace projects.
- Supplementary evidence gathered through supervisor reports from work placement.
- In some RTOs, conducting assessments against individual units of competencel; in the majority of RTOs, combining units of competence into clusters to better reflect the realities of the workplace.

Management competencies

Workshop participants frequently highlighted management units of competence as being difficult to deliver to institutionally based students. This applied to generic management competencies, eg 'Manage staff'; or specific management competencies, eg 'Manage a wetland' (Horticulture Training Package). Units of competence may also pose ethical difficulties for RTOs to realistically simulate, eg 'Manage complex behavioural situations' (Community Services Training Package).

Students who are not employed in a management position are unlikely to gain the opportunity to practice these skills in a workplace. This was borne out in the case studies. For most RTOs, students are using the workplace for observation of management practices and gathering work-based information for assignments. Some RTOs, however, have decided to only offer management-level qualifications to students who are in employment.

Achieving workplace performance standards

Simulating workplaces

RTOs are using various methods to simulate workplace conditions. These range from scenarios and role plays (eg handling difficult clients, developing business plans) through to practice firms (eg office practice firms) community projects and fully operational services (eg beauty salons and restaurants).

Industry has a mixed view about the validity of simulations for assessing competence. The retail industry believes that competence can only be developed and assessed on the job. Similarly, in hospitality, one state ITAB did not consider training restaurants in TAFE Institutes to provide the conditions for assessment under realistic workplace conditions.

Some RTOs stated that this is leading to decisions to move away from simulation in preference to students developing these skills in work placement. This raises another set of issues for students and RTOs.

Work placements

RTOs in the case studies for this project are using work placements in a variety of ways (refer also to Table 1), including:

- only a short period of work placement to familiarise students with the culture of the workplace.
- regular periods of work placement to enable students to link classroom learning to the workplace.
- using the workplace as a resource for students to gather materials for assignments.
- using the workplace and industry trainers to deliver training and conduct workplace projects.

All RTOs in the case studies involved students in either employment or some period of work placement. However, while work placements may provide the opportunity for students to develop and apply competencies in the workplace, there can be limitations. These include:

- availability of enterprises in the region (note competition for places with schools).
- ability to redeploy teaching staff into selecting suitable enterprises and monitoring quality.
- legislative and industrial restrictions on time spent by students in work placement.

The quality of work placement can be variable. Students' experiences range from work observation and the completion of only menial tasks, to real learning experiences and opportunities to develop competence. While competencies such as lead work teams are best developed in real workplace situations, few students are given the opportunity during a work placement to put these skills into practice. Similarly, employers are unlikely to allow students to operate specialist machinery that is unavailable to RTOs because of its cost or the potential cost of lost production.

Development of training programs/curriculum

Training Packages specify *what* learners must achieve to attain a qualification. A training program specifies *how* learners will meet these outcomes.

In some of the case studies, RTOs are delivering training based directly on either individual units of competence, or clusters of competence. In others, training programs are a combination of learning modules and competencies.

RTOs are developing training programs to tailor training to suit their client needs and their preferred training and assessment arrangements by:

- incorporating prerequisite units or modules not specified in the Training Package.
- specifying underpinning knowledge linked to competence.
- structuring and sequencing training that takes students through a logical program of knowledge and skill development.
- linking the training program into the RTOs' systems for recording and reporting progress and achievement.

RTOs distinguished other training arrangements from institutionally based training programs, recognising the latter as preparing students for:

- employment in an industry in contrast with on-job training, which is specific to only one enterprise. To do this, institutionally based programs aim to incorporate knowledge and skills that take account of the range of enterprises and work practices in industry.
- further study as well as employment, by developing analytical, problem solving and other generic skills through the learning methods.

A number of RTOs reported that funding directly linked to individual units of competence is restricting the opportunity to incorporate adequate underpinning skills and knowledge in training programs.

Delivering diploma qualifications through institutionally based training arrangements

Although most of the RTOs in the case studies delivered diploma qualifications are doing so through institutionally based training, many teachers at the workshops raised concerns about this qualification level. There are a number of reasons for this and they include:

- the inclusion of management competencies as core units at these qualification levels, as these are more difficult to teach and assess without access to a workplace environment
- the size and complexity of units of competence
- the lack of (or inadequate) prerequisites identified for entry into the qualification

- insufficient specification of underpinning knowledge
- the lack of a clear educational pathway to develop generic skills (eg problem solving skills) which underpin the development of competence at this level
- the extent of work placement or employment which may be necessary to develop competence at this level.

The diploma-level qualifications are of particular concern to RTOs, as these qualifications:

- have traditionally provided the basis for articulation from VET into higher education courses.
- are available to students who enrol directly from school on completion of year 12 and hence have little experience of relevant employment, particularly at management and supervisory levels.
- are marketed to national and international students as an entry point for either management aspirants (eg tourism and hospitality), or para-professional technicians (eg information technology).
- are in almost all cases unavailable through New Apprenticeship arrangements.

For these reasons, an institutionally based training pathway to the diploma qualification must be assured. It was suggested that if entry into the industry can be achieved through a diploma, then the advanced diploma could be tailored more towards existing employees with a strong focus on management competencies. This proposal would not necessarily suit all industries or occupations; eg laboratory technicians and electronic technicians need technical skills to advanced diploma level.

Discussion

As stated earlier, Training Package documentation does not exclude institutionally based training. Yet, there is ambiguity amongst RTOs and industry about whether, and how, this training pathway can enable students to achieve competence at all qualification levels.

There are a number of reasons for this:

- Competencies are expressed in terms of workplace functions and performance. This leads to assumptions that the workplace is the most appropriate environment for training and assessment.
- There is a lack of clarity about the extent of skill maturity required to attain competence.

If institutionally based training is to be more widely accepted, then measures will need to be taken to ensure this pathway is explicitly accommodated and recognised within Training Packages. RTOs will, however, continue to provide institutionally based training, simply because of the demand for access to training and qualifications. If appropriate action is not taken, there will no doubt be louder calls for a dual qualification system (Carnegie 2000, pp 207-211).

The shift from curriculum to Training Packages is designed to leave decisions about training delivery to RTOs to best meet their client needs. However, the concerns about national consistency within the VET system suggest that, at least until there is a shared understanding of competence across the VET system, more guidance is required (Summary of ANTA Ministerial Council decisions in Australian Training, September 2000). The development of more detailed and restrictive assessment specifications in Training Packages is not necessarily seen as the answer (TAFE Directors Australia 2001). Perhaps what is missing from Training Packages, though, is a discussion about training.

As a nationally endorsed set of vocational qualifications for a sector of industry, each Training Package presents a unique opportunity for collaboration between industry and RTOs to give guidance on training to meet the competencies and qualifications. Questions to be discussed and agreed include:

- How might the new qualifications affect existing training and assessment arrangements?
- How can the possible training pathways be developed to meet the outcomes for each qualification level?
- Which industries and RTOs will each contribute to ensure new entrants and existing employees can attain these qualifications?

Unfortunately, the adversarial environment that has accompanied the introduction of Training Packages has often polarised, rather than unified, views between industry and RTOs (eg see articles in the *Campus Review*, March 15-21, March 22-28, April 5-11, April 12-18). The proposal by ANTA to develop a User Guide for each Training Package may provide an opportunity to include more comprehensive information about training for Training Package qualifications in the nationally endorsed documents.

Conclusion

Institutionally based training is continuing under Training Packages. RTOs are using a variety of training and assessment strategies to enable their students to develop and gather evidence of competence. This has led many RTOs into closer partnerships with industry to provide support through advice on standards and the provision of work placements, for example.

Many trainers are positive about the direction of Training Packages, but many are also concerned that the contribution they can make as educationalists has been marginalised. Ownership of national vocational qualifications by industry is a hallmark of Training Packages. Improvements in national consistency and in the quality of graduates from qualifications in Training Packages are more likely to come about, however, if RTOs are constructively engaged in the debate and development of the system and not simply viewed as a supplier of a predetermined product.

This project will put a number of recommendations to ANTA to ensure that institutionally based training is a recognised and valued pathway to Training Package qualifications.

References

ANTA (2000) Australian training. MINCO report, September. Brisbane.

Carnegie J (2000) Pathways to partnerships - ANTA/AVCC report and draft policy guidelines. Melbourne: VETASSESS.

Doughney L (2000) Packages threaten articulation. Campus Review, 5-11 April, Brisbane.

Down C M (2000) Pathways towards professionalism. Campus Review, 22-28 March. Brisbane.

Lewis A (2000) A new and dynamic tool. Campus Review, 22-28 March. Brisbane.

NCVER (1999) Australian Vocational Education and Training Statistics: 1999 Student Outcomes Survey National Report. Adelaide: National Centre for Vocational Education Research.

Peoples K (2000) Training packages: troubled centrepiece of VET system. Campus Review, 15-21 March. Brisbane.

Scollay M (2000) Pedagogy and the training package: the ideal learner's combo. Campus Review, 22-28 March. Brisbane.

Sobski J (2000) The pedagogue and the package. Campus Review, 12-18 April. Brisbane.

TAFE Directors Australia (2001) Training packages: a position paper. Canberra.

Contact details

Andrew Boorman
Principal Policy Officer, Quality Branch
Department of Education, Training and Employment
31 Flinders St Adelaide
South Australia 5000
Ph: +61 8 8226 1000
Email: boorman.andrew@saugov.sa.gov.au

Trends in educational expenditure

Gerald Burke

Centre for the Economics of Education and Training, Monash University, Victoria

Knowledge of the level and composition of expenditure on education and training and of who finances that expenditure are essential inputs to the review of the efficiency, effectiveness and equity in the provision of education and training.

This paper[1] provides an overview of data on expenditure on education and training in Australia and its possible use in answering some basic questions such as:

- what is the level of government and private expenditure in total and relative to GDP?
- what is the level of government expenditure relative to other government outlays?
- what is its growth over time?
- how much of the growth is a real change as distinct from a price change?
- how much of growth is attributable to demographic changes and to changes in participation or in intensity of training?
- who pays - what are the main sources of public and private finance?
- how do Australia's expenditure and sources of finance compare with other countries?
- what is the expenditure per student, or per hour of training, in different sectors of the system?

In this paper, attention is given to expenditure on education institutions. Employer expenditure on workplace training is not considered in this paper. For a recent analysis of employer expenditure, see Long (2001).

The level of expenditure

Table 1 shows the education outlays in the 1990s. Estimated outlays on education increased by about 35% in the financial years 1993-1999. In the same years, the GDP grew slightly more so that the estimated share of GDP devoted to education fell from about 5.8% to 5.6%. Government outlays still make up most of the expenditures, though they declined relative to private expenditures in the period considered. The fastest growing element of government outlays was transfers to private institutions; notably private schools and private VET institutions for the delivery of education and training. Fixed capital formation was the slowest growing element. Student benefits grew relatively slowly in this period.

Government 'loans' to students under HECS are treated as advances and not as government outlays. The net increase in advances is shown in the bottom line of Table 1.

Government outlays on education make up about 14% of all government outlays. This has changed little in recent years. General government outlays relative to GDP have fallen slightly during the period of rapid economic growth since the early 1990s, from about 37% in 1992-1993 to 34% in 1999-2000.

Table 1: Expenditures on education, 1991-1992 to 1999-2000, current prices $b (Australia)

	Year ending June 30									
	1992	1993	1994	1995	1996	1997	1998	1999	2000	% increase 1993-1999
Government final consumption expenditure	15.8	16.3	16.6	17.1	17.6	18.7	19.5	21.0	21.6	29
Government gross fixed capital formation	1.0	1.2	1.0	1.1	1.1	1.3	1.1	1.3	1.4	11
Total government final expenditure	16.8	17.4	17.6	18.1	18.8	19.9	20.6	22.3	23.0	28
Government transfers to private sector	n/a	2.4	2.6	2.8	3.0	3.3	3.8	4.1	n/a	68
Student benefits*	1.6	1.7	1.8	1.8	1.9	1.9	1.9	2.1	n/a	22
Total government education Outlays**	n/a	21.6	22.0	22.7	23.7	25.1	26.3	28.4	n/a	32
Household final consumption expenditure**	4.7	5.0	5.3	5.7	6.2	6.9	7.7	8.3	8.7	65
Private gross fixed capital formation	0.4	0.4	0.5	0.5	0.6	0.6	0.7	0.7	0.8	63
Total private final expenditure	5.1	5.5	5.8	6.2	6.7	7.5	8.4	9.0	9.5	65
Private expenditure less government transfers	n/a	3.0	3.2	3.3	3.7	4.1	4.6	4.9	n/a	63
Total government and private expenditure less government transfers to private sector	n/a	24.6	25.2	26.1	27.4	29.3	30.9	33.3	n/a	35
Government outlays as % of total	n/a	0.88	0.87	0.87	0.86	0.86	0.85	0.85	n/a	
GDP	406	427	449	473	507	532	565	595	632	40
Total as %GDP	n/a	5.8	5.6	5.5	5.4	5.5	5.5	5.6	n/a	
Net government advances (HECS) $b		0.6	0.6	0.4	0.5	0.5	0.6	n/a	n/a	

BEST COPY AVAILABLE

*estimate

Source: ABS 5204.0, 5510.0 and 5518.0. 48.00.

Change in resources and change in prices

The share of the GDP that is spent on education is affected by:

- change in the GDP;
- change in the inputs in education and training, especially the number of teachers employed; and
- change in the prices of those inputs, especially teachers' salaries, relative to the overall price level.

Table 2 presents data on these factors. It provides estimates of 'gross value added' in the education industry including public and private education institutions. Gross value added differs from total expenditure on education in that it excludes non-employee payments such as supplies and services purchased from other industries and student benefits (see ABS 5216.0). In the case of public education, gross value added comprises the payments related to employees and consumption of fixed capital (depreciation).

Table 2 shows that in current prices, education gross value added increased at much the same rate as GDP, a fairly similar picture to that given for all outlays on education in Table 1. Table 2 also gives estimates in *chain volume measures*. The chain volume measures remove the effect of price changes over the period. These show that the volume of education (gross value added) grew by 22% in the eight years to 1999-2000 and the volume of GDP grew by 40%. This measure of education as a percentage of GDP fell from 4.9% to 4.2%. The reason for this is the difference in the price deflators. The implicit deflator for education rose by 25% while the deflator for GDP rose by only 11%.

Such an outcome is to be expected for 'non-market' industries, such as education and health, where production is measured in the National Accounts by the cost of the inputs and not by the sale of the service. The national accounts do not show any change in productivity in such areas (see ABS 5204.0, Table 19), whereas labour productivity in the market sector is estimated to have grown by 3% per annum in the period considered here (ABS 5204.0, Table 17). If wages and salaries in education move roughly in line with the general level of wages and salaries in the community, then it is to be expected that the implicit deflator for education will increase considerably more than the deflator for the GDP.

Table 2: Indicators of education and GDP: volume and price changes, 1991-1992 to 1999-2000 (Australia)

Year ending June	1992	1994	1996	1998	2000	% change 1992-2000
Education gross value added, current prices, education $b	18.3	20.9	22.2	25.1	28.0	53
GDP at current prices $b	406.0	449.4	507.0	564.7	631.8	56
Education gross value added % GDP	4.5	4.6	4.4	4.4	4.4	
Industry gross value added, chain volume measure, education, $b	21.5	24.1	24.3	25.9	26.3	22
GDP chain volume measure $b	442.0	477.0	520.3	565.1	621.0	40
Education chain, % GDP chain	4.9	5.0	4.7	4.6	4.2	
Implicit deflator education gross value added	0.85	0.87	0.91	0.97	1.07	25
Implicit deflator GDP	0.92	0.94	0.97	1.00	1.02	11

Source: ABS 5204.0

Demographic change and participation

Were the increases in the quantity of education the result of demographic change, increased participation rates or increased resources per student? The effect of demographic change and change in participation are now considered. Table 3 shows that the total population grew 10% in the period 1992-2000. However, growth was slow in the age groups where enrolments in education are highest (ages 5-24). The number aged 15-19 was only 2% higher at the end of the period and the numbers aged 20-24 were 5% lower. Growth was much larger among older persons. The population aged 30-64 grew by 15%. Overall, taking account of the higher rates of participation among younger age groups, changes in population would have added only about 4% to enrolments in the period.

Table 3: Population by selected age groups, 1992-2000 (Australia), '000

Age	1992	1994	1996	1998	2000	% increase 1992-2000
5-9	1280	1282	1306	1324	1331	4
10-14	1252	1280	1308	1313	1327	6
15-19	1323	1277	1279	1314	1349	2
20-24	1430	1440	1397	1357	1361	-5
25-29	1383	1362	1418	1470	1475	7
30-64	7539	7811	8102	8388	8691	15
Subtotal (5-64)	14206	14451	14811	15166	15534	9
Total population	17495	17855	18311	18730	19157	10

Source: ABS 3201.0

Table 4 shows the effects of the increase in participation rates that occurred from 1992-1997. The overall effect of increased participation up to the rates in 1997, adds 1% to overall enrolments. The increase in participation rates was greatest for persons aged 20-24 where enrolments increased by 7% while population fell 5%. The effects on the different education sectors are not uniform, as the increased enrolment among persons 30 and over is mainly in the VET sector.

The expansion of enrolments is highest in the post-school areas, where expenditures per student are higher than at school level on average. Preliminary estimates suggest that this would account for about 2% in addition to expenditures in the period.

Table 4: Approximate full-time equivalent enrolments at actual participation rates, 1992-1997, 1997 rates to 2000 - schools, TAFE and higher education combined (Australia), '000

	1992	1994	1996	1998	2000	% increase 1992-2000
5-14	2445	2473	2518	2538	2559	5
15-19	892	862	874	901	925	4
20-24	229	238	245	244	244	7
25-29	70	69	79	82	82	17
30 and over	139	136	158	163	169	21
Total	3776	3778	3874	3928	3980	5

Source: Based on data from ABS 3201.0, DETYA (1999a). Part-time enrolments in higher education and TAFE have been approximately converted to full time equivalent numbers.

Who bears the cost?

Table 1 shows a rising share of private expenditures, though only from 12% to 15% of the total. Also note that the private share would be lower throughout the period if the net addition to HECS advances were deducted from net private expenditures.

Part of the burden of private expenditure is covered by tax deductions. Self-education expenses related to employment or donations for capital expenditures in educational institutions can be claimed. Tax expenditures are analysed each year (Treasury 2000) and further analysis will be made of this aspect of educational finance.

The states and territories provide the majority of outlays for education and training from their general revenues - which include general financial assistance grants from the Commonwealth. Commonwealth's specific payments for education rose quite sharply in the early 1990s, from 37 to 44%, but have since fallen to about 42%. The states provide the bulk of public funds for schools and VET, while the Commonwealth provides nearly all the public funds for higher education and for student assistance.

How do our aggregate expenditures compare with other countries?

Total general government outlays on all purposes including education, health and social security as a percentage of the GDP are shown in the last column of Table 5. Only Korea, US and Ireland have a lower rate of total government outlay than Australia. In contrast, Austria, France, Denmark and Sweden have rates of outlay in excess of 50% of GDP.

Table 5 also provides comparisons with a range of OECD countries for government and private educational expenditures (excluding student assistance for living expenses). Australia is shown to be the fourth lowest in public expenditure, but tenth lowest out of 23 countries in combined public and private expenditures on educational institutions. Australia has a higher rate of private expenditure on education than most European countries. Only Japan, Germany, Greece, Korea and US have higher rates of private expenditure. Germany is seen to have a high level of private expenditure only because employer expenditure on apprenticeship is included in their data. In several of the countries including Australia, expenditures on education are shown to have increased in the period 1990-1997. This differs from Table 1, where education outlays in Australia were seen to decline slightly as a percentage of GDP. The main reason is the difference in the time periods under consideration.

The issues of funding of education and training and the possible alternative forms of public and private finance are discussed further in Burke (2001b).

Table 5: Public and private educational expenditures and general government total outlays as a percentage of nominal GDP

	Education expenditures					General government total outlays
	1997				1990	1999
	Direct public expenditure for educational institutions	Private payments to educational institutions	Total public and private expenditure for educational institutions*	Total for tertiary educational institutions	Total public and private expenditure for educational institutions	
Australia	4.3	1.1	5.6	1.7	4.9	32.3
Austria	6	0.4	6.5	1.5	m	50.7
Belgium (Fl.)	4.8	0.4	5.2	0.9	m	47.9
Canada	5.4	0.7	6.5	2	5.7	40.2
Czech Republic	4.5	0.7	5.2	0.8	m	46.0
Denmark	6.5	0.3	6.8	1.2	6.4	54.3
Finland	6.3	x	6.3	1.7	6.4	47.1
France	5.8	0.4	6.3	1.2	5.6	52.2
Germany	4.5	1.2	5.7	1.1	m	45.6
Greece	3.5	1.4	4.9	1.2	m	43.5
Hungary	4.5	0.6	5.2	1	5.3	46.9
Iceland	5.1	0.6	5.7	0.7	4.8	32.9
Ireland	4.5	0.4	5	1.4	5.2	31.0
Italy	4.6	0.1	4.8	0.8	m	48.3
Japan	3.6	1.2	4.8	1.1	4.7	38.1
Korea	4.4	2.9	7.4	2.5	m	25.5
Luxembourg	4.2	m	m	m	m	na
Mexico	4.5	1	5.5	1.1	m	na
Netherlands	4.3	0.1	4.7	1.2	m	43.2
New Zealand	6.1	m	m	m	m	40.8
Norway	6.6	m	m	1.4	m	46.1
Poland	5.8	m	m	m	m	44.5
Portugal	5.8	0	5.8	1	m	44.7
Spain	4.7	0.9	5.7	1.2	4.9	38.6
Sweden	6.8	0.2	6.9	1.7	m	55.9
Switzerland	5.4	0.5	6	1.1	m	na
Turkey	m	m	m	m	3.2	na
United Kingdom	4.6	m	m	1	m	39.3
United States	5.2	1.7	6.9	2.7	m	30.1
Country mean	5.1	0.8	5.8	1.3	5.2	na
Weighted total**	4.8	1.2	6.1	1.7	5	37.8

Source: OECD (2000b, Table B1.1a, c) and OECD (2000a, Annex Table 28)

Legend: m = missing data; x = included in another category; n = negligible; *includes public subsidies to private

---

sector for expenditure on educational institutions; **average weighted by population of each country.

Sectors

The aggregate expenditures hide changes across the sectors. To consider this, we first note the distribution of public outlays, including student benefits, in the main sectors. Table 6 shows that about 60% of government outlays on education goes to schools, nearly 20% to universities and a little over 10% to TAFE.

Table 6: Government outlay on education by sector, 1997-1998, $b (Australia)

	Consumption expenditure	Capital	Student benefits	Other	Total***
Schools	10.0	0.7	0.7	3.4	14.7
TAFE	2.2	0.3	0.2	0.1	2.7
Universities	3.3	0.8	0.9	0.1	5.1
Total***	17.7	1.8	1.9	3.8	25.1

Source: ABS Catalogue 5510.0. ***Total includes other expenditures such as pre school and transport.

School expenditure

Much of the growth in school enrolments, and therefore in the rate of expenditure, has occurred in 'Other non-government' schools, which are largely privately funded. The savings to governments are offset to some extent by the growth in government funding of non-government schools in recent years. There has been an *apparent* growth in government recurrent funding of government schools. This is shown in Table 7. The nominal amount increased over 30% from 1993-1999. Since there was virtually no change in student numbers in government schools, per student expenditure also increased by about 30%. At (approximate) constant prices, the increase appears to have been about 13%.

The increases for non-government schools are much larger. Student numbers have increased by 12%. Enrolments in Catholic schools have increased little and nearly all the increase in enrolments is in Other non-government schools which operate at higher levels of expenditure than Catholic schools. It is not surprising then to find overall a substantial increase in average expenditure per student in non-government schools, though the estimated figure of 25% in constant prices seems large.

As a check, the ratio of students to teachers was considered. The average ratio of students to teachers has fallen very slightly from 15.0 to 14.9 in government schools and fallen more notably in non-government schools from 16.1 to 15.0. It may be noted that Other non-government schools devote more of their expenditures to non-teacher expenditures than government or Catholic schools.

Table 7: Recurrent expenditure on government and non-government schools, current prices

	Government (financial year) $m	Students '000	$ per student	$ per student 1998 prices	Non-government $m	Students '000	$ per student	$ per student 1998 prices
1990	8215	2193	3745	4873	3035	848	3578	4656
1993	9666	2228	4338	4856	3564	870	4095	4584
1994	9888	2215	4464	4996	3800	884	4296	4809
1999	12703	2248	5652	5486	5768	979	5892	5719
% 1993-1999	31	1	30	13	62	12	44	25

Source: Data from MCEETYA (2000),.MCEETYA (annual), ABS, Catalogue no.6306.0.

Note: The data on government and non-government expenditures are not compiled on the same standards; it is the trend over time rather than the actual levels that should be given attention.

There is wide variation in the changes across states. There has been an increase in expenditure per student in several states and reductions in expenditure in others (eg in Victoria, which had above-average expenditures at the start of the decade).

VET revenue and expenditure

Changes in the nature of the VET sector and major changes in the data collections mean that considerable courage is needed to make comparisons over time. Table 8 reports VET revenues over the 1990s. The total government share is shown to fall from 87% to 82% of the total. The share of public funds coming from the Commonwealth increased markedly with 'growth' funds provided in the 1990s up to 1997, but has declined since then. The other notable change is the growth in 'fee for service' which includes overseas student fees, payments by industry, full-fee payments by Australian students and payments by governments other than the regular funding to public institutions. There has not been a marked change in student fees for publicly funded programs. Most state and territory authorities cap the level of tuition fees at about $1 per contact hour.

Table 8: VET operating revenues, 1989-1990 to 1999, current prices (Australia)

	1989-1990		1993		1997		1999	
	$m	%	$m	%	$m	%	$m	%
State Government	1,558	74	1,828	63	2,126	56	2,226	59
Commonwealth Government	283	13	619	21	947	25	828	23
Fee for service	85	4	219	8	351	9	341	9
Student fees and charges	71	3	102	4	156	4	160	4
Ancillary trading & other	113	5	130	4	207	5	196	5
Total	2,109	100	2,898	100	3,787	100	3,751	100

Source: National Centre for Vocational Education Research (NCVER) (2000 and earlier publications).

Note: Changes in the collection and the introduction of accrual accounting from 1997 affect comparisons over time.

ANTA (2000) reports public expenditure per 'annual hour curriculum' (AHC) delivered in government-funded VET programs. Estimates are also made of cost per hour of successful module completion. Changes in the financial and student statistical systems mean that comparisons prior to 1997 are not feasible. Table 9 provides the most recent data at constant prices. Expenditure per hour has declined 10% in the years 1997 to 1999[2]. Total hours have increased 12%.

There are remarkable differences among the states, which reflect differences in state management, funding and staffing policies. These need to be explored in detail and linked to measures of quality before conclusions can be drawn as to the relative success of different state policies. A factor in this consideration is the estimate of the relative difficulty of the various states and territories in providing VET. The Grants Commission, for example, estimates that the Northern Territory requires twice the Australian average to provide a similar level of service per hour of training.

Table 9: Government recurrent expenditure per publicly funded annual hour of VET curriculum, 1997-1999 (1999 prices) and total adjusted publicly funded hours (million)

		NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Australia
1999	Expend $	14.5	9.3	13.4	11.8	13.0	15.8	19.6	15.1	12.6
	Hours	86.3	72.4	40.2	20.5	24.0	4.7	3.1	4.6	255.6
1998	Expend $	15.3	10.4	12.3	13.6	13.4	16.6	27.7	17.1	13.2
	Hours	83.0	67.5	42.7	16.9	22.1	4.3	2.3	4.4	243.4
1997	Expend $	15.0	10.5	14.9	15.6	15.1	19.0	28.8	17.2	14.0
	Hours	83.0	63.2	36.3	15.3	19.7	3.9	2.0	3.3	227.8

Source: ANTA (2000, vol 3, p 158).

Higher education

Universities receive their public funds from the Commonwealth, but are nearly all state institutions. Their unusual status leads to their being classified in a Multi-Jurisdictional Sector by the ABS. As a result, there are published data for the operating revenues and expenses of universities in the Government Finance Statistics (5512.0), whereas there are no separate operating statements for other education sectors. Universities received $8725 million in 1998-1989, of which only 50% or about $4400 million was direct grants from government. In addition, governments could be the source of some of the 'Other revenues' and some of the 'sales'. Revenue from sales of goods and services includes full-fee payments and also implicit fees from students funded under HECS. To provide an indication of the size of this factor, students' liability for HECS for 1998 was $1450 million. This was partially offset by up-front payments of about $240 million and by about $620 million received in voluntary payments and repayments through the tax system.

An increase in the share of the cost of higher education is borne by students, and real expenditures per student have been reduced. The share of expenditure borne by students was affected mainly by the decision in 1996 to increase substantially the level of HECS charges for certain courses, to increase the rate of repayment and to reduce the threshold income at which the repayments had to begin.

The changes in the base operating grant used to fund Australian students (excluding full-fee students) in the universities is shown in Table 10. Base grants per planned EFTSU and actual EFTSU are shown, and also HECS receipts per actual EFTSU. HECS receipts per EFTSU have nearly doubled to $2100 from 1996-1999. From Table 17, it appears that funds per student received by universities have changed little. However the method of expressing the expenditures in year 2000 prices 'does not reflect actual factor price movements but reflects the increase the Commonwealth provides to institutions each year towards the increases in salary and non-salary costs' (DETYA 2000, p 199). The DETYA cost adjustment factor with base December 1995 was 1.067 for 1999. Actual cost changes are greater than this, though a precise estimate is not available[3].

Table 10: Commonwealth base operating grant to higher education institutions per planned and actual EFTSU (Australia)

	1990	1993	1996	1999
Base operating grant $m	3,773	4,203	4,751	4,784
Planned EFTSU '000	335	374	417	413
$ per planned EFTSU	11,258	11,227	11,384	11,585
Actual EFSTU '000	341	386	439	457
$ per actual EFTSU	11,065	10,897	10,823	10,463
HECS up-front, voluntary payments and repayments $m	133	243	500	981
$ HECS receipts per actual EFTSU	389	630	1,139	2,146

Source: AVCC Funding Tables (2000). EFTSU = equivalent full-time student unit.

Note: All amounts are expressed in 2000 price levels using DETYA's cost adjustment factor from 1996 and various price indexes for the earlier period. The base operating grant excludes funding for the Commonwealth Industry Places Scheme, excludes capital roll-in and includes adjustment to the operating grant (as a result of net over-enrolment) of $49.2m for 1999.

Summing up

This paper has used newly available ABS data and administrative data for the main sectors to report on the size and trends in public and private education expenditures. The effects of demographic change and changes in participation have been analysed at an aggregate level. Demographic change has had only a minor effect on expenditure in recent years, and changes in participation rates had an even smaller effect (though the effects of changes in participation since 1997 are yet to be incorporated in the analysis).

Expenditure measured at current prices increased a little less than the GDP in the period from 1991-1992. Adjusting for price changes, the quantity of education provided increased less than the GDP. However, there was a considerable increase in the quantity provided: larger than 14% and perhaps over 20%. Compared with measures of the changes in enrolments and even allowing for shifts to the more expensive sectors, the growth in education exceeded the growth in 'weighted' student numbers.

At least in the last few years, the growth in real expenditure per student has been confined to the school sector. In publicly funded higher education, there has been a decline in real expenditure per EFTSU. In VET there has been a decline in the government recurrent expenditure per publicly funded annual hour of curriculum.

Brief comparisons have been made with other OECD countries. Australia's total expenditure comes in at a little below the middle of the list but its government expenditure is near the lower end. Australia now ranks among the countries with the highest private levels of education expenditure.

There is not a great deal of detail in the ABS education data. While there is more detail available for the separate sectors they differ in coverage, and comparability is therefore limited. Matters for further attention are:

- sectoral analysis of the measures of price change and the methods of estimating chain volume measures;
- financial assistance for students by sector;
- the size of tax reduction provided for education expenses and donations; and
- the extent to which measures of expenditure can be related to other measures of output.

Notes

1. This paper is based on Burke (2001a).

2. As indicated earlier, the relative cost changes in the education sector are likely to be considerably higher for the GDP as a whole. Use of an education-specific price deflator for the estimates may show a more substantial decline in resources per annual hour.

3. University academic salary rates had risen about 12 percent from december 1995 to mid 1999.

Note: CEET is funded by the Commonwealth Government through the Australian National Training Authority as a Key Vocational Education and Training Research Centre. The views and opinions expressed in the paper are those of the author and do not necessarily reflect the views of ANTA. ANTA does not give any warranty or accept any liability in relation to the content of the work.

References

Australian Bureau of Statistics Estimated Resident Population by Sex and Age, Catalogue no 3201.0.

Australian Bureau of Statistics Population Projections 1999 to 2101, Catalogue no 3222.0.

Australian Bureau of Statistics Schools Australia, Catalogue no 4221.0.

Australian Bureau of Statistics Australian System of National Accounts, Catalogue no 5204.0.

Australian Bureau of Statistics Australian System of National Accounts: Concepts, Sources and Methods, Catalogue no 5216.0.

Australian Bureau of Statistics Expenditure on Education, Catalogue no 5510.0.

Australian Bureau of Statistics Government Finance Statistics, Catalogue no 5512.0.

Australian Bureau of Statistics Government Finance Statistics, Education, Catalogue no 5518.48.001.

Australian Bureau of Statistics Training and Education Experience, Australia 1997, Catalogue no 6278.0.

Australian Bureau of Statistics Employee Earnings and Hours, Catalogue no 6306.0.

Australian Bureau of Statistics Employer Training Expenditure, Australia July-September 1996, Catalogue no 6353.0.

Australian National Training Authority (2000) Annual National Report 1999, vol 3, Brisbane.

AVCC (2000) Funding Tables -1983 to 2002, Canberra.

Burke G (2001a) Expenditure on education and training in Australia in the 1990s: overview and decomposition, forthcoming CEET.

Burke G (2001b) Financing lifelong learning: a review of needs and options, Journal of Educational Planning and Administration, July.

DETYA (1999) Education Participation Rates, Australia - 1997, Canberra.

DETYA (2000) Higher education report for the 2000-2002 triennium, Canberra.

Long M (2001, in press) What is happening to training? What the ABS training surveys tell us. Australian Journal of Labour Economics.

MCEETYA (2000) Summary 1998-99 finance statistics.

MCEETYA (annual) National report on schooling in Australia, Curriculum Corporation.

National Centre for Vocational Education Research (2000) Australian VET statistics 1999, in detail.

National Centre for Vocational Education Research (2000) Australian VET statistics 1999, financial data.

OECD (2000a) Economic outlook, June, Paris.

OECD (2000b) Education at a glance, Paris.

Treasury (2000) Tax expenditures statement 1997-1998, Canberra.

Contact details

Gerald Burke

Centre for the Economics of Education and Training (CEET)
Monash University - ACER
PO Box 6
Monash University
Victoria 3800, Australia
Ph: 03 9905 2865 Fax: 03 9905 9184
Email: gerald.burke@education.monash.edu.au
Website: www.education.monash.edu.au/centres/ceet

Keeping death out of the curriculum: workbased learning through scenario methodology in emergency services

Merilyn Childs, Workbased Learning Unit
University of Western Sydney

In many previous papers, we have argued the legitimacy of work as the site of learning, and 'work as curriculum' (Childs, 1997). There are times however, when 'work' involves life and death situations where human error may have disastrous consequences for social systems, people and property. In occupational settings where death and destruction form part of everyday labour, educators committed to workbased learning need to develop learning approaches that allow learners to develop new, critical and creative capabilities on-the-job *without* causing harm.

This paper will explore the current use of simulation in the NSW Fire Brigades as part of an executive development program. It then proposes that simulations can be extended and deepened through scenario methodology through which learners can develop and refine new capabilities close to the 'real life' of work without causing real death. Whilst this paper uses fire services as a case study, the insights developed are applicable to educational contexts where more direct forms of workbased learning may not be practicable or safe.

Online support for VET clients: expectations and experiences

Sarojni Choy

Australian National Training Authority, Queensland

Cathy McNickle and Berwyn Clayton

Canberra Institute of Technology, Canberra

The integration of information technology has dramatically enhanced flexible delivery of vocational education and training (VET) by expanding and modernising capabilities to include the online medium. This has necessitated the expansion of learning services to meet the needs of more diverse groups of learners.

Though research activities are continuing to inform how innovative use of new technology could enhance the delivery of courses, little is known about the nature of support for online learning that learners expect. The nature and range of services for online learning remain diverse, as each provider attempts to meet the needs of its learners within the constraints of variables that include mainly infrastructure, skilled staff, and specifically designed materials for this mode of delivery. Within Australia, presently there are no minimum standards for online delivery or services to learners.

In view of the deficiency in research informing about services for online learners, a national study was conducted to explore the expectations and experiences of online learners in the Vocational Education and Training (VET) sector. This paper briefly reports the outcomes of the study.

Online learners enrolled with various Registered Training Organisations (RTOs) from the VET sector were contacted for their voluntary participation in a survey to explore their expectations of services for pre-enrolment/enrolment, learning and teaching and technical support. Altogether 201 complete, useable responses to the survey were received. The mean response for each item in the survey was examined to rank the services in order of most to least expected. Five most expected services in each category (pre-enrolment/enrolment, learning and teaching, and technical) are reported.

Background

The diversification of flexible delivery options, particularly since the introduction of the online mode, has prompted the National Flexible Delivery Taskforce and the Australian National Training Authority (ANTA) to initiate several new projects to enhance the learning needs of those pursuing studies through the flexible delivery modes. A review of the local literature on such projects indicates a greater focus on technical support and professional development for staff, as RTOs grapple with the transfer of learning from the traditional classroom mode to online. Much of the support services are based largely on the assumptions that the needs of online learners are similar to those of traditional distant education students using other modes. There is very limited evidence of research on the nature of services that online learners expect from their providers.

Online learning requires 'the use of cyber systems such as Intranet and Internet for communication for the purpose of teaching and learning' (Warner et al 1998). It involves the correct use of technical as well as pedagogical skills and knowledge to successfully undertake learning by utilising the capacities of information technology. Indeed online education is seen to be evolving its own pedagogy (National Education Association 2000), therefore requiring considerable research to identify, develop and provide appropriate support.

Even with access to a wide network through the world wide web, learner support from the providers is critical for online learning. Salmon (1998) asserts that it is the responsibility of the provider to ensure the learner is sufficiently comfortable with technology so that it becomes an 'enabling device rather than a barrier'. A recent study by Cashion (2000) shows that despite the arguments for the benefits of the online environment, many learners are not taking full advantage of this technology. LeCornu (2000) supports that many learners have the basic skills in computing, but require training for more effective use for formal learning. Evaluations by Laurillard (1993), Bignum and Kenway (1998), Bennett et al (1999) and McKavanagh et al (1999) have stressed that online learners have three key requirements:

- contact with peers and teachers;
- well-developed information literacy skills; and
- stimulating online activities.

Carroll and McNickle (2000) advocate that all of the support services in place for traditional face-to-face students should also be made available to online students. Added to these, specific services to support online pedagogy should be considered. In any case, the presence of a tutor who is able to respond quickly to the learners is vital. Mitchell and Bluer (1996) assert that the tutor is often more significant than the learning technology. Harper et al (2000) allude to various challenges for facilitators and learners to achieve success through the online mode. They highlight nine critical issues to consider:

- maintaining motivation
- acceptance of the technology by teachers and students
- prior knowledge for participation in online learning
- attitudes towards technology
- content level
- degree of interactivity
- ability of facilitators and learners to use the technology
- accessibility to the systems supporting online learning
- communication skills.

The overall success in the transition between classroom and online education is a challenge being addressed by all RTOs. Clayton et al (2000) maintain that the success of online delivery in the VET sector will be significantly driven by the experiences and expectations of the learners. Without appropriate and adequate learner support, the promise of information technology to enhance flexible delivery will be difficult to realise. It is therefore essential to investigate the limitations experienced by learners and adequately address specific needs for online learning. Hence this study was supported by the National Centre for Vocational Education and Research (NCVER) to explore the expectations and experiences of online VET learners in Australia.

Methodology

The purpose of the study with online learners was firstly to explore their level of expectation for a range of services relating to pre-enrolment, online learning and teaching, and technical assistance. A questionnaire was developed and respondents were asked to rate their level of expectation against each item. The items originated from a review of literature on student support services for pre-enrolment, online learning and teaching, and technical assistance. The questionnaire was structured into four sections. Section I was designed to collect background information about the respondents. The remaining three sections focused on pre-enrolment, online learning and teaching and technical support. There were 28 items to be rated for pre-enrolment; 34 items for online learning and teaching; and 16 items for technical support. Each item had a Likert-type scale ranging from 0 to 3 (0 = Not expected; 1 = Low; 2 = Moderate; 3 = High) to indicate the level of expectation.

At the end of Section IV, respondents were also provided space to write any comments regarding their expectations of services that were not mentioned in Sections II-IV. The questionnaire was reviewed by the members of the Project Reference Group and piloted with 22 online students before the main survey was conducted.

The second purpose of the study was to investigate online learners' evaluation of current online services. They were asked to indicate the essential services, those that are most beneficial, examples of best practice and any limitations in current support mechanisms. Data for the second purpose was collected through interviews in which 11 online learners participated. Data from both sources - survey and interviews - were collected using online technology, mainly emails.

Permission was sought from Directors of online VET RTOs to conduct the study with their students. A liaison person in each participating RTO was contacted to assist with the administration of the survey questionnaire and interview proforma to online students enrolled in the second semester of year 2000. The survey was sent individually to each student; mass emailing was avoided to maintain confidentiality.

The survey participants were requested to return their completed questionnaires directly to the project officer within a week. The project officer's contact details were provided to each participant in case they needed clarification about the study. Reminders were sent to those who had not responded within a two-week period. The main reason for not responding was due to limited time resulting from heavy work demands prior to the Christmas break.

Overall, it was found that the participants were very cooperative and open with their comments. An added advantage in using the email for the survey was that respondents could be accessed easily if they forgot to respond to any of the questions in the survey. Furthermore, it was possible to clarify any comments they wrote at the end of the questionnaire. Thankyou notes were emailed to each individual who responded.

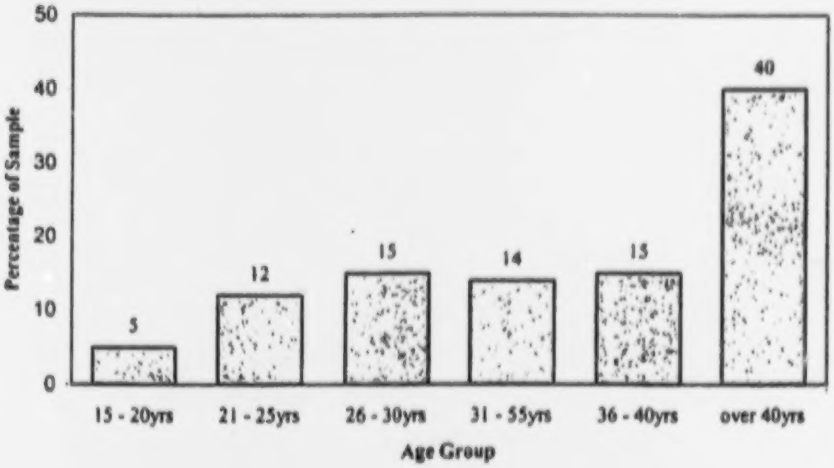
All quantitative data were analysed using the SPSS computer software. The response to each question was coded. The analyses of the survey data were mostly descriptive in nature.

The 201 completed survey responses were received from students who represented 23 public and private RTOs offering VET-type courses across Queensland, New South Wales, Australian Capital Territory, South Australia and Victoria. Before presenting the results, it is important to examine the profile of the online learner.

Online learners – a brief profile

There were 68% females and 32% males in the sample. A majority of the respondents (40%) were aged over 40 years. Only 5% were aged below 20 years and 12% were between the age of 21 and 25 years. Fifteen percent of the sample was aged 26-30 years, 14% was 31-35 years old and 15% was 36-40 years. The distribution of respondents within each age group is shown in Figure 1.

Figure 1: Distribution of sample within each age group



Of the total sample, only one student indicated that he was 'Disabled' and a majority (73%) did not belong to any of the other stated target groups (Aboriginal and Torres Strait Islander; culturally and linguistically diverse background; rural or regionally isolated). Only 3 students (2%) were of Aboriginal or Torres Strait Islander origin, 5.9% were from a culturally and linguistically diverse background and 19% were from rural or regionally isolated areas.

Online learners who participated in this study were studying courses at certificate and diploma levels. A majority of the learners in the sample (48%) undertaking online courses were studying for a Certificate III qualification. About 26% were pursuing a Certificate IV course, while 7% were completing courses for a Certificate II or III, and 5% were undertaking studies for a diploma and 6% for an advanced diploma. Subjects in information technology, business administration, accounting and government administration were the most common areas of study.

Among those pursuing studies through the online mode, a majority were beginners with this mode of study. About 66% said they were completing their first module at the time of the survey. About 31% had already completed between 1-5 modules through the online mode and 3% had completed over five modules using this medium.

The respondents were asked where most of their online learning took place. The sample's responses showed that most (42%) of them completed all their online learning from home. About 22% said all their online learning took place at work. Seventeen percent (17%) of the sample completed learning mostly at home and the rest at work, while 16% said they completed most of their online learning at work and the rest at home. Only 2% of the sample said they completed their online learning at the computer centre of their institute and 1% indicated their learning took place at a friend's house, because they did not own a computer.

A majority of online learners (64%) said they intend to complete the whole course via the online mode. About 17% of the sample plan to complete some modules/subjects online and the rest by other modes. Nineteen percent (19%) of the sample were not decided about future online learning.

A large proportion of the sample (94%) was employed while studying online. Among them, 7% were in part-time employment while 87% held full-time jobs. Online courses appear to be popular with full-time employees, most of whom seem to dedicate time outside their working hours to complete their studies.

The sample was asked to state their reasons for undertaking online courses. The three main reasons were: flexibility, change and lack of choice.

Of the total sample, 68.2% undertook online learning because of flexibility in terms of pace, time and place. Some examples of statements they wrote were:

> Freedom - I can work at my own pace.
>
> No time constrains, can work whenever I have time.
>
> Due to geographical constraint. I live in the rural area.

About 12.2% said they enrolled in online courses to experience a change from traditional delivery systems.

> Just wanted a change.
>
> I have an interest in the internet systems.
>
> I enrolled in a pilot course and wanted to test out the online system.

About 19.6% of the sample said they did not have a choice in the course they were studying online because it was offered only through this mode. Among them, a few said their employer who sponsored their study requested they completed the course online to participate in a pilot study.

Overall, the results show that the flexibility in time, place and pace are the key reasons why learners enrol in online courses.

In summary, the results of this study illustrate a profile of online VET learners that represents a set of common characteristics. Online VET learners appear to be represented mostly by:

- females;
- those aged over 30 years;
- individuals who do not belong to any specific target group (disabled, Aboriginal or Torres Strait Islander, culturally and linguistically diverse background, rural or regionally isolated);
- those mostly pursuing a Certificate III qualification in information technology;
- beginners using the online mode of delivery;
- learners who hold full-time employment and complete most of their learning in their own time, at home; and
- those who intend to complete the entire course via the online mode due to flexibility in time, place and pace.

Results

Level of expectation for pre-enrolment/enrolment services

The mean scores for the 28 pre-enrolment/enrolment support services listed in the questionnaire were examined to rank the level of expectation (0 = not expected, 1 = low, 2 = average, 3 = high). Table 1 ranks (from highest to lowest) the sample's expectations for each type of service for pre-enrolment and enrolment.

Table 1: Expectations for pre-enrolment/enrolment services

Expectation – highest to lowest	Mean
Detailed information about what is required to complete the module/course	2.80
Detailed information about the courses	2.78
Security of personal details on the institute's database	2.69
Instructions on whom to approach for help	2.59
Information on how to enrol	2.57
Instructions on how to seek help	2.55
The software and hardware requirements needed to do the course/module	2.46
Recommended library resources to support learning	2.37

A guide on minimum time required for online learning each week	2.28
Comprehensive information about the institution providing the online course	2.27
Enrolment via the internet	2.25

Ability to make changes to personal details through access by password	2.21
Electronic security measures and how to utilise them	2.12
Timetables for any workshop/orientation on using online technologies	2.06
Guide to effective learning strategies for independent learning	2.05
Option to complete the RPL via the internet	2.05
An assessment of my readiness for online learning	2.04
Advice about the level of self-motivation required for online learning	2.03
Assistance with the development of a personal learning plan	1.99
The total cost for completing each module/course	1.95
Suggestions on managing my learning	1.95
Access to student administration	1.93
Guide to institute provider's policies on using the internet for learning	1.89
Access to institute student services	1.86
Information about copyright obligations	1.69
Pre-enrolment counselling on my suitability for online learning	1.49
Payment of fees via the internet	1.31
A special deal with an internet service provider that is set up by the institution	1.25

The five most expected services for pre-enrolment/enrolment were:

- Detailed information about what is required to complete the module/course (m = 2.80)
- Detailed information about the courses (m = 2.78)
- Security of personal details on the institute's database (m = 2.69)
- Instructions on whom to approach for help (m = 2.59)
- Information on how to enrol (m = 2.57).

The lowest expectations for pre-enrolment/enrolment services were for:

- A special deal with an internet service provider that is set up by the institution (m = 1.25)
- Payment of fees via the internet (m = 1.31)
- Pre-enrolment counselling on my suitability for online learning (m = 1.49)
- Information about copyright obligations (m = 1.69)
- Access to institute student services (m = 1.86)

There was no significant difference in responses by age. There was a significant difference (t = -2.21, p = 0.030) in expectations by male and female learners for four services. Females had a higher expectation for *detailed information about what is required to complete the module/course* (m = 2.86) than males (m = 2.67). Females also had a higher expectation for *enrolment via the internet* (t = -2.07, p = 0.040) (m = 2.35) than males (m = 2.03). With regards to security of personal details on the institute's database, females expected this service more than males did (t = -2.16, p = 0.030) (m

for females = 2.77; m for males = 2.52). Males indicated lesser expectation for the *option to complete RPL via the internet,* than females (t = -2.00, p = 0.045) (m for males = 1.83; m for females = 2.15).

There was a significant difference between expectations of employed and unemployed online learners. The differences were in four types of services:

- the total cost for completing each module/course (t = -8.42, p = 0.00)
- the software and hardware requirements needed to do the course/module (t = -6.26, p = 0.000)
- security of personal details on the institute's database (t = -4.46, p = 0.000)
- access to institute's student services (t = -2.44, p = 0.037).

The unemployed online learners had higher means for these services (m = 3.00, 3.00, 3.00 and 2.43 respectively). Compared to those in full-time employment, learners who were in part-time employment had higher expectations for *the software and hardware required to complete the course/module* (m = 3.00); *detailed information about what is required to complete the module/course* (m = 3.00); and *an assessment of readiness for online learning* (m = 2.50). The difference in the expectations of the two groups was significant (t = 5.88, p. 0.000; t = 2.95, p = 0.004; t = 2.82, p = 0.011 respectively).

Level of expectation for learning and teaching

The sample's expectations for each type of service for online learning and teaching are ranked in Table 2.

Table 2: Expectations for learning and teaching

Expectation – highest to lowest	Mean
Clear statements of what I was expected to learn	2.69
Helpful feedback from teachers	2.67
Requirements for assessment	2.65
Communication with teachers using a variety of methods, eg email, online chat, face-to-face discussion	2.65
Timely feedback from teachers	2.60
Course outline and learning outcomes	2.54
Information on due dates for the different tasks	2.51
Information on the return time for assignments	2.49
Strategies for approaching assessment tasks	2.49
The way feedback is to be provided to me	2.41
Learning materials presented in small manageable amounts	2.37
How I could demonstrate my learning	2.36
Guide to composing assignments	2.27
Opportunities to practice skills that are being acquired	2.25
Regular encouragement by teachers	2.22
Guide on how to make my learning effective	2.21
Back-up support using telephone or faxes	2.16

Strategies for independent learning	2.07
Tips on how I would succeed in online learning	2.01
Bulletin board set up for each course	1.99
System to address student concerns	1.98
Access to frequently asked questions and responses about online learning	1.95
Web-board for discussion	1.85
Communication with other students using a variety of ways, eg email, online chat	1.84
Procedures for withdrawing from the course	1.82
Procedures for transferring from the course	1.70
Online chat room	1.66
Grievance and appeals procedures explained	1.67
Provision of suggestion box	1.64
Links to job vacancies	1.30
Working in groups	1.28
Strategies for job interviews	1.23
Access to the institute's student association	1.21
A guide to writing resumes	1.21

The five most expected services in the area of learning and teaching were:

- Clear statements of what I am expected to learn (m = 2.69)
- Helpful feedback from teachers (m = 2.67)
- Information on requirements for assessment (m = 2.65)
- Communication with teachers using a variety of ways, eg email, online chat, face-to-face discussion (m = 2.65)
- Timely feedback from teachers (m = 2.60)

The lowest expectations for learning and teaching services were for:

- A guide to writing resumes (m = 1.21)
- Access to the institute's student association (m = 1.21)
- Strategies for job interviews (m = 1.23)
- Working in groups (m = 1.28)
- Links to job vacancies (m = 1.30).

As a majority of online learners in the survey were already in full-time or part-time employment, a low level of expectation for these services was not surprising.

There was no significant difference in the responses by age group. However, significant differences were noted in the responses of males and females for the following services:

- *Communication with teachers using a variety of methods, eg email, online chat, face-to-face discussion* (t = -2.32, p = 0.023). The mean response for males was 2.47 and for females it was 2.73.
- *Helpful feedback from teachers* (t = -2.51, p = 0.014). The means of males and females were 2.49 and 2.75 respectively.

- *Presentation of learning materials in small manageable amounts* (t = -2.59, p = 0.011). Males had a mean of 2.13 and females 2.48.
- *Strategies for job interviews* (t = -2.54, p = 0.012). Females had a higher mean of 1.35 than males, who had a mean of 0.92.
- *Strategies for approaching assessment tasks* (t = -2.21, p = 0.029). The mean for males was 2.31 and for females it was 2.56.
- *Guide for composing assignments* (t = -2.33, p = 0.022). The mean for males was 2.05 and for females it was 2.37.
- *The way feedback is to be provided* (t = -2.60, p = 0.011). Females had a higher mean of 2.53 than males, who had a mean of 2.16.

Level of expectation for technical support

Table 3 contains the ranking (from highest to lowest) of the expectations for technical support.

Table 3: Expectation for technical support

Expectation – highest to lowest	Mean
Quick response to technical problems	2.34
Easy access to technical assistance	2.24
Provision of technical (IT) assistance throughout the course	2.17
Strategies for checking the accuracy/quality of information on the internet	2.09
Access to frequently asked questions and responses about technical issues	2.05
Tips on how to conduct online research	2.02
Provision of glossaries to inform me about technical online terms	1.96
Tips on how to access databases	1.90
Tips on how to use electronic reference material	1.87
Tips on how to download information	1.87
Code of Conduct for online users	1.78
Guide on how to use search engines	1.72
A guide on participating in a discussion group	1.67
Net etiquette	1.64
Tips on how to attach and send files by email	1.53

Guide to using email	1.49

The five most expected technical services were:

- Quick response to technical problems (m = 2.34)
- Easy access to technical assistance (m = 2.24)
- Provision of technical (IT) assistance throughout the course (m = 2.17)
- Strategies for checking the accuracy/quality of information on the internet (m = 2.09)
- Access to frequently asked questions and responses about technical issues (m = 2.05).

The lowest expectations for technical services were for:

- Guide to using email (m = 1.49)
- Tips on how to attach and send files by email (m = 1.53)
- Net etiquette (m = 1.64)
- Guide on participating in a discussion group (m = 1.67)
- Guide on how to use search engines (m = 1.72).

There was no significant difference in the mean responses for technical support services by age, gender or employment status.

Evaluation of current online services

Online learners who participated in the online interviews cited three essential services for completion of their courses: regular contact with teachers/tutors, quick response from teachers/tutors and regular support for learning. They believed that regular communication with teachers/tutors as well as peers through emails or telephone was important to motivate and encourage them to continue with their learning. As the technologies that support online delivery are recognised for speedy communication, learners expect quick responses. Learners expect their teachers/tutors to provide them with direction, links to resources, clear navigation, and to establish networks to support their learning. They also suggested that teachers/tutors should initiate and schedule regular discussions through chat rooms.

Regular contact with teachers/tutors and hyperlinks to resources and other sites were identified as the most beneficial services for online learners. Among the services perceived as best practice examples, the interviewees listed: bulletin boards; enrolment information with links to application forms; course information including costs for each; and the option to complete the assessment online.

According to the interviewees there were two main limitations in the current online services that related to facilitation and technical systems. Many believed that teachers did not provide clear guidelines or explanations of their expectations from learners. The interviewees shared a common view that many teachers/tutors are not adequately trained for online delivery. Some learners identified limitations in technical knowledge (of teachers) in the use of online technology. A few interviewees stated disappointment with changes in teachers/tutors during the semester. Learners experienced difficulties because some materials were not specifically designed for online delivery. They compared online learning materials that were offered by RTOs (mostly international) other than those they were enrolled with.

Limitations with the current technical systems related mostly to navigation problems that limited access to a set number of webpages at a specific time. This presented them with difficulties when they wanted to cross-reference a particular page or document while preparing notes or completing assessment tasks. According to a few online learners, they expected a lot more interactivity with the learning materials than was currently available. Access to technical support (eg log-in) after hours was of concern to a few online learners.

Summary

The results of this study suggest that there is a higher proportion of females than males undertaking VET online courses. A majority of online learners (68%) are aged over 40 years and are in full-time employment. A majority do not belong to any particular target group (eg disabled; Aboriginal or Torres Strait Islander; culturally and linguistically diverse background; rural or regionally isolated). A range of courses at the Australian Qualification Framework (AQF) levels is currently being offered online. These include courses for the Certificate I, II, III and IV and courses at the diploma and advanced diploma levels. Courses at the Certificate III level were most diverse and popular.

The survey responses indicate that most of the learning tasks are completed in the learners' own time at home. They explained that the flexibility in pace, time and place of learning were the key reasons for choosing the online mode. Most of the learners surveyed for this study planned to complete their entire course via the online mode.

The survey results show that online learners have high expectations of certain services during pre-enrolment/enrolment and learning and teaching. Five services that are most expected are:

- Detailed information about what is required to complete the module/course
- Detailed information about the courses
- Security of personal details on the institute's database
- Clear statements of what learners are expected to learn
- Helpful feedback from teachers.

The first three of these services are expected during pre-enrolment and enrolment and the remaining two relate to learning and teaching.

Although much of the learning that takes place through the online delivery systems requires self-directed learning approaches, the findings of this study indicate that online learners still prefer frequent communication and interaction with teachers/tutors. There appears to be much demand for pedagogical support such as that available in the traditional classroom settings. Comments from participants in this study suggest that many online learners have broad knowledge and understanding about interactive online materials. They have explored other materials on the world wide web and have experienced the capacities for interactiveness and virtual reality through technology. Online learners have high expectations of online materials. They also expect their teachers/tutors to have expertise in and knowledge of online systems so as to provide better services to learners.

The key issues for RTOs to consider include:

- specific professional development for teachers/tutors who are involved in online delivery;
- allocation of dedicated staff to support online learners so that they are able to provide rapid response to enquiries;
- establishment of guidelines and directions for online learners and teachers/tutors; and
- establishment of the roles and responsibilities of learners as well as teachers/tutors.

The key issue of the national governing body such as ANTA is to set minimum standards for online delivery to ensure any specific groups of online VET learners are not disadvantaged.

Acknowledgments

The authors acknowledge the financial support provided by NCVER for the completion of the study reported in this paper. The support of VET online learners and staff who contributed to this study is gratefully appreciated.

References

Australian National Training Authority (1996) National Flexible Delivery Taskforce Final Report. Brisbane: Australian National Training Authority.

Baron J, Thiele D and Hintz E (1995) Following the yellow brick road. Adelaide: National Centre for Vocational Education Research.

Booker D (2000) Getting to grips with online delivery. Adelaide: National Centre for Vocational Education Research.

Boote J (1998) Learning to learn in vocational education and training: are students and teachers ready for it? Australian and New Zealand Journal of Vocational Education Research, vol 6, no 2, pp 59-86.

Brennan R (2000) All that glitters is not gold: online delivery of education and training. Adelaide: National Centre for Vocational Education Research.

Brookfield S (1984) Self-directed adult learning: a critical paradigm. Australian Education Quarterly, vol 35, no 2, pp 59-71.

Bruce D (1998). Building social capital and community learning networks in community internet access centres. Learning Communities, Regional Sustainability and the Learning Society.

Candy P (1991) Self-direction for lifelong learning. San Francisco: Jossey-Bass.

Carroll T and McNickle C (2000) Online student services report. Canberra: Canberra Institute of Technology.

Cashion J (2000) Research in on-line education. Moving On-line Conference, Gold Coast, Southern Cross University.

Choy S and Hill D (2000) Managing a case study approach in VET research to address the funding agency's criteria. Third National Conference of AVETRA, Canberra, National Centre for Vocational Education Research.

Cochrane C (2000) The reflections of a distance learner 1977-1997. Open Learning, vol 15, no 1, pp 17-34.

Cornu P L (2000) Using online technology in a flexible learning centre. Moving Online Conference, Gold Coast, Southern Cross University.

Doherty M (2000) Internet gap risk to quality of education. Canberra Sunday Times, Canberra, p 17.

Gee L (2000) Log on to learn. Impulse - Inflight, November-December, pp 20-22.

George R (1995) Flexible delivery: the new paradigm in higher education. Access through open learning '95, Ballina, Southern Cross University.

Harper B, Hedberg J, Bennet S and Lockyer L (2000) The online experience: a review of the state of Australian online education and training practices. Adelaide, National Centre for Vocational Education Research, p 40.

James T (1998) Literature review regarding student withdrawal and completion. Sydney, OTEN.

Killen R (1994) Differences between students' and lecturers' perceptions of factors influencing students' academic success at university. Higher Education Research and Development, vol 13, no 2, pp 199-211.

LeCornu P (2000) Using online technology in a flexible learning centre. Moving Online Conference, Gold Coast, Southern Cross University.

Low D, Drake V and Lynam P (2000) Flexible initiatives in physics at ADFA. Moving Online Conference, Grand Mercure, Gold Coast, Southern Cross University.

McKavanagh C (1999) Educational frameworks for the development and evaluation of web-based learning. Australian Vocational Education Review, vol 6, no 1.

McNickle C (1999a) Flexible delivery: induction strategies and support for learner success. Canberra: Canberra Institute of Technology, p 90.

McNickle C (1999b) Flexible delivery: induction strategies and support for learner success. What does the literature say? Canberra, Canberra Institute of Technology, p 52.

Mildon F (2000). Successful delivery of web based e-learning. Networking 2000, online.

Misko J (1999) Different modes of delivery - student outcomes and students' perspectives. Melbourne: AVETRA.

Misko J (2000) The effects of different modes of delivery: student outcomes and evaluations. Adelaide: National Centre for Vocational Education Research.

Mitchell J and Bluer R (1997) A planning model for innovation: new learning technologies. Melbourne: OTFE.

O'Connor P B (2000) E-learning and students with disabilities: from outer edge to leading edge. Networking 2000, online.

Peoples K (1999) Online learning: seven best practice principles. The Australian TAFE Teacher, vol 33, no 2, pp 10-11.

Pittman L (2000) Keeping quality in the picture. Campus Review, March 1-7, p 12.

Policy T (2000) Quality on the line benchmarks for success in internet-based distance education. Washington: National Education Society and Blackboard.

Postle G and Sturman A (2000) Models of learning as a factor in online education: an Australian case study. Society for Research in Higher Education Conference, Stirling, UK.

Robson R (1999). WWW-based course-support systems: the first generation. International Journal of Educational Telecommunications, vol 5, no 4, pp 271-282.

Salmon G (1998) Student induction and study preparation online. Telematics in Education Seminar, Joensuu, Finland.

Salmon G (2000) E-moderating the key to teaching and learning online. London: Kogan Page.

Scott W (2000) Cyber learning. Australian Training Review, October-December, no 36, p 9.

Smith P (2000) Flexible delivery and apprentice training: preferences, problems and challenges. Journal of Vocational Education and Training, vol 52, no 3, pp 483-503.

Stavaren L V, Beverley S and Bloch B (1999) Student support in flexible delivery. Sydney, New South Wales: Vocational Education and Assessment Centre.

Sturgill A, Martin W and Gay G (1999) Surviving technology: a study of student use of computer-mediated communication to support technology education. International Journal of Educational Telecommunications, vol 5, no 3, pp 239-259.

Warner D, Christie G and Choy S (1998) The readiness of the VET sector for flexible delivery including on-line learning. Brisbane: EdNa-VET Working Group, Australian National Training Authority.

Contact details

Sarojni Choy
Australian National Training Authority
PO Box 3120
Brisbane, Queensland 4001
Email: ChoyS@anta.gov.au

Maximising confidence in assessment decision-making: a springboard to quality in assessment

Berwyn Clayton

CURVE, Canberra Institute of Technology, Canberra

Robin Booth and Sue Roy

VEAC, TAFE New South Wales

The introduction of Training Packages has focused attention in the vocational education and training (VET) sector on the quality of assessment. For the process of mutual recognition under the Australian Recognition Framework (ARF) to work effectively, there needs to be confidence in assessment decisions made by Registered Training Organisations (RTOs). The issues of quality and consistency in assessment have become central to the development of the VET system in Australia. However there are a range of views and strategies regarding how this consistency, confidence and quality can be achieved.

The issue of consistency in vocational education and training

In 1999, the Australian National Training Authority (ANTA) CEOs identified ten areas of inconsistency in the implementation of the national VET system by states and territories. These included differences with the 'declaration of vocations' and industrial relations arrangements for 'New Apprentices', differences in the monitoring and auditing of RTOs, different pricing models for user choice and differences with the legal underpinnings of both mutual recognition of RTOs and internal quality assurance arrangements for RTOs. ANTA is aiming to strengthen national legislation to reduce this inconsistency.

Kaye Schofield's reviews of the traineeship systems in Queensland, Tasmania and Victoria (where apprenticeships were also included in the study) identified a raft of issues leading to poor quality provision at the system and provider level and recommended strategies for the registration of providers, the strengthening of the audit function, quality assurance of teaching and learning and specific improvements to the individual states' traineeship systems. In each case, Schofield identified assessment as one of the areas requiring attention in assuring quality.

Consistency in competency-based assessment

The introduction of Training Packages and increased attention to assessment have focused this concern with consistency. Prior to the introduction of competency-based training, education providers relied much more on centralised regulated systems of examinations to ensure consistency of assessment events. Assessment decisions were often made by centralised panels of 'markers'.

Assessment against competency standards within Training Packages involves collecting evidence and making judgements on whether or not the competency has been achieved. Various factors including the experience and skills of assessors and the clarity of competency standards themselves can influence the quality of judgements made. The potential variability in factors affecting assessment and the need to maintain flexibility and focus on the learners means there will always be potential for variation in assessment decisions.

In 1999, DETIR Queensland investigated the success of current assessment practices in supporting the new training environment (Smith 1999). The study considered the major issues, practices and changes impacting on the quality of the assessment of training and recommended ways in which assessment practices and approaches may be improved.

Smith found that there is 'significant scope to improve the quality of assessment in terms of validity, consistency, usefulness and cost-effectiveness and that there are a significant number of trainers/assessors whose practices are not supportive of a quality assessment system'. He found an excessive amount of assessment being conducted with the concept that quantity equals quality, too much emphasis on summative assessment, and a lack of quality educational support for trainers/assessors.

Interestingly, Schofield's report of the Tasmanian system (1999) referred to Smith's study. She suggested that concerns about inconsistency may be less the result of inconsistent practice and more the result of a competency-based training system that allows only for a yes/no assessment rather than graded assessment. Many trainees may be assessed as competent yet they will each display varying degrees of capability leading to perceptions of inconsistency in assessment. She concluded that the 'issue of inconsistency in assessment may therefore be illusory', but recognised that other concerns about the extent to which valid, reliable and ethical assessment practices are being universally applied are substantial and require attention.

In early 2000 the National Training Framework Committee (NTFC) commissioned an evaluation project titled Consistency in Competency-based Assessment. The aims of this evaluation were to explore the concept of consistency in relation to a competency-based training system; identify and analyse factors that may impact positively or negatively on the consistency of assessment processes and outcomes, particularly in regard to Training Packages; and identify strategies for maximising consistency. The recommendations of this evaluation were concerned with the need to strengthen competency standards and include more specific advice in assessment guidelines as part of Training Packages. They also encompassed the strengthening of the audits of RTOs, assessor training and ongoing professional development and the introduction of an assessment review process for RTOs. This review process involves validation of assessment decisions by assessors to review the RTOs' assessment materials, processes and outcomes. Following this research ANTA is aiming to strengthen the aspects of assessment practice on which RTOs will be audited.

The term consistency in assessment is being used here to cover the assessment principles of validity, reliability and fairness. For assessment processes to produce consistent outcomes, they must assess what they are supposed to assess and produce similar outcomes when used by the same assessor or different assessors with candidates of equal competence at different times and/or places. Assessors must have a shared understanding of the standard and the basis on which assessment decisions are made and what constitutes sufficient evidence.

The role of quality assurance in assessment

Quality assurance is defined for the Training Package for Assessment and Workplace Training BSZ98 (ANTA 1998) as:

> A planned and systematic process of ensuring that the requirements of the assessment systems, competency standards and any other criteria are applied in a consistent manner. Quality assurance mechanisms or procedures are an integral part of an assessment system.

Toop et al (1994) established a framework for an assessment system that included elements of a comprehensive quality assurance strategy. These included screening and training of assessors; verification of assessment decisions; appeals mechanisms and processes; and review of the assessment system.

Bloch et al (1995), in supporting Wolf's contention that much assessment is made on the basis of assessor experience in their technical domain, suggested that there is a need to set up a system of checks and balances to justify assessment decisions. Quality assurance of all aspects of assessment is crucial for the protection of assessors and all other stakeholders in the process.

Alexander (1997), quoted in Docking (1997, p 11), lists four criteria for quality assurance: the use of qualified assessors; established validation; feedback; appeals and verification processes; industry-endorsed assessment guidelines; and provision of industry audit of the assessment process.

The international experience

In Australia, the focus of assuring quality in assessment has concentrated on the 'front end' of the process in developing and clarifying competency standards and qualifications and in the registration and audit of providers. In Australia, self-regulation has been the clear focus of VET policy overall. In other comparable VET systems such as those in the United Kingdom and New Zealand, there is a more centrally directed regulatory system with prescribed forms of moderation to ensure quality outcomes.

The Qualifications and Curriculum Authority (QCA) in the United Kingdom contends that 'the credibility of any assessment system depends on fair, accurate assessment and effective quality assurance' (QCA 1997, p v). Effective quality assurance is also seen as the critical element in building the confidence of all stakeholders involved in National Vocational Qualifications (NVQs).

This emphasis on quality assurance has generated a highly regulated approach to assessment in NVQs. Within this system, there is a dual layer of monitoring which makes up the quality assurance strategy – internal verification and external verification. The *Awarding Bodies' Common Accord 1997* provides the guidelines for quality arrangements in the system, while *Implementing the National Standards for Verification* sets out how the national standards for assessment and verification units are to be assessed and verified.

Studies by Black (1993), Eraut (1994), Lester (1996; 1997; 1999) and Konrad (1999) highlight some of the critical issues and concerns that they have with the highly regulated approach adopted for assessment of NVQs. In particular, they focus upon the quality *control* nature of the UK system which includes increasing external monitoring and standardisation. Lester (1996) suggests that the solution is not one of quality control, but rather quality assurance. He contends that the solution primarily rests with ongoing professional development. For him, increasing the quality control measures is bound to have detrimental outcomes.

> The result is likely to be that while public confidence is increased, validity suffers as assessment increasingly concentrates on factors which are amenable to checks and controls ... (Lester 1996, p 3)

More specifically, Konrad (1999, p 9) suggests that the complex role of internal verifier is often under-resourced and those carrying out this role have barely adequate initial education and training to undertake the tasks effectively. Eraut (1994, p 207):

> Evidence suggests that once established by training and regular communication, a community of assessors is able to ensure sufficiently standard use of criteria; but that it is easy for standardization to slip if training and communication are not regularly maintained.
>
> The training of assessors and verifiers is another essential component of quality assurance, because assessment and verification are themselves professional processes requiring special expertise.

The New Zealand Qualifications Authority (NZQA) adopts a somewhat less rigorous approach in implementing the New Zealand Qualifications Framework.

Unit Standards are established by Standards Setting Bodies, registration of providers, provision of assessment materials in some industry sectors by the relevant Industry Training Organisation; establishment of unit standards for assessment; provision of assessor training and the use of qualified assessors.

Assessments conducted against unit standards that are drawn from specific industry sectors are moderated through processes established by the relevant Industry Training Organisation. The NZQA requires providers of training to develop their own quality assurance systems. However, all unit standards set requirements for moderation, and training providers and standard-setting bodies are responsible for ensuring that assessors participate in the designated process for ensuring validity and consistency in assessment.

Quality assurance and compliance

In Australia, all RTOs must meet the requirements of the Australian Recognition Framework to obtain and maintain registration. These requirements have been reviewed and will be changed substantially in 2001 reflecting the national concern with consistency and quality. The revised ARF will stipulate requirements for:

- systems for quality training and assessment

- compliance with Commonwealth and state/territory legislation and regulations
- effective financial management
- effective administrative and records management procedures
- recognition of qualifications issued by other RTOs
- access and equity
- competence of RTO staff
- RTO assessments
- learning and assessment strategies
- issuing qualifications
- use of national and state logos
- ethical marketing and advertising.

Regardless of any regulatory requirements, an organisation needs to be committed to providing the best possible training delivery and assessment services. Quality assurance focuses on a systematic approach to improvement that recognises and responds to the needs and expectations of all stakeholders in the enterprise.

Smith (2000, p 29) concludes that:

> The consistent message from the research, worldwide, into successful assessment practice is that the achievement of assessment quality requires an integrated package of initiatives: relevant and practice-oriented pre-service and professional development training; a combination of both progressive ('formative') and summative assessment; a genuine 'team' effort between professional trainers and appropriate industry/employer representatives; on-going research into, and dissemination of, best practice; clearly defined standards for both initial and on-going 'registration' as a trainer (as distinct from a training organisation); and an effective system of moderation and audit. Unless all of these components are addressed in an integrated fashion, quality of assessment is unlikely to be achieved.

Identifying and developing quality assurance strategies

In 2000, the Canberra Institute of Technology (CIT) and the Vocational Education and Assessment Centre, TAFE NSW (VEAC) investigated strategies for improving confidence in assessment decision making for providers (NCVER, to be published). Issues initially identified by providers as having an impact on the quality of assessment and the level of confidence of assessors and others in the VET sector were:

- the lack of consistency in assessment decisions and assessment practice

- the new demands placed on assessors and assessment with the implementation of training packages

- the lack of rigorous quality assurance processes

- concerns about the quality of assessor training programs and ongoing support for assessors.

This research drew together assessors from private and public providers specifically from the Children's Services, Information Technology and Horticulture industries. The project found that although providers used a range of quality assurance strategies, very few organisations currently have a comprehensive strategy to assure quality in assessment. From this consultation, specific strategies were identified for further development in the areas of validation of assessment tools and judgement, gathering of evidence and the use of assessment partnerships.

Findings from this research are currently being used to develop an assessment guide for RTOs and assessors to develop comprehensive quality assurance arrangements for their organisations (DETYA, in press). The key aspects of assessment we consider necessary to be quality assured are:

- the assessment system
- the assessment process
- the assessors
- the evidence
- the judgement.

This comprehensive approach identifies strategies to assure quality for each of these aspects but particularly recognises the vital role of assessors and the need for them to participate in validation activities and continued professional development.

Validation as a key quality assurance strategy

Recent Australian national and state-based research points towards the need to support assessors in their decision making through activities to validate or moderate the evidence collected and the judgement made.

The revised ARF standards (ANTA 2001, draft February) in fact stipulate that RTOs implement a validation process and define it as:

> reviewing, comparing and evaluating assessment processes, tools and evidence contributing to judgements made by a range of assessors against the same standards. Validation strategies may be internal processes with stakeholder involvement or external validations with other providers and/or stakeholders.

While there are some providers and specific industry sectors currently implementing adhoc validation activities with assessors, there is little evidence to date of RTOs encouraging their assessors to systematically review, compare and evaluate their assessment processes, tools and evidence (NCVER, to be published).

(Note that the use of the term 'moderation' is being debated. Moderation has traditionally implied some statistical application to achieve norm-referenced scores such as the moderation activities for the NSW Higher School Certificate. In the case of competency-based assessment, the term validation is now used to describe the process of reviewing, comparing and evaluating assessment.)

Implementing these QA strategies – where to from here?

Tension between national compliance requirements and implementing quality assurance strategies by RTOs

The revisions and strengthening of the ARF Standards for RTOs are being made in an attempt to improve consistency and quality of VET provision. These changes could become a whitewash to ultimate improvement of quality if RTOs treat them as maximum requirements rather than minimum standards. The RTO has to sponsor or own this process and have the will to devote resources to improving the quality of its training and assessment.

Difficulties in implementation of quality assurance strategies

The implementation of validation processes will certainly require RTOs to allocate additional resources for assessors to meet to compare and evaluate their assessment effectively. Our experience to date in working with RTOs suggests that while this process offers excellent opportunities for professional development and improving quality of assessment, providers will find it difficult to allocate the resources needed for effective operation.

Tension in emphasis in implementation of the range of quality assurance strategies

This paper has referred to the range of different strategies for assuring quality in assessment and stressed the need to implement all of them comprehensively.

It will be interesting to observe developments in attention to these strategies for assessment of VET courses in secondary schools. The issue of consistency of outcomes has become particularly significant with the inclusion of VET subjects linked to the ARF being used for university selection and is of great concern to ANTA CEOs. In a paper commissioned by ANTA, the Assessment Research Centre (Griffin et al 2001) recommends a range of strategies to deal with this complex issue, where VET subjects can contribute to what has been a single university entrance score for Australian universities.

The paper recommends the introduction of a standards referenced system for interpreting and reporting of VET subjects, with content-specific criteria developed for each vocational subject. Greater specificity in industry standards would be welcomed nationally.

The paper also recommends the development of calibration of assessment data through item response modelling procedures, which can be calibrated onto a single underlying differentiating scale for each VET subject or unit. Griffin et al (2001) specifically recommend that 'all VET assessment data that combines workplace and classroom assessments to integrate competency and differentiating purposes should be centrally calibrated to enable quality assurance mechanisms to apply' (2001, Recommendation 11). A system is suggested where schools could design and administer performance tasks within approved assessment strategy and design parameters. The data from these assessments could then be provided to a central administrative agency for calibration. However, such measures would be costly, difficult to administer and potentially lack the flexibility needed to enable assessment that demonstrates competence in authentic workplace environments.

While the paper does identify a need for professional development for teachers in assessment task design, it focuses on the development of a national task bank. There is consideration of the potential role of moderation to support assessors. In this context, it is seen as the process of bringing scores and standards into alignment and the emphasis on the calibration of assessment tasks to ensure comparability across schools.

The task of balancing the needs of assessment for industry competency recognition and university selection is extremely complex. However, it will be interesting to watch the development of these recommendations and their potential viability in the broader VET context.

Conclusion

We have defined confidence in assessment decision making as a sense of trust in the:

- quality of the information provided to learners
- validity of the assessment tools
- reliability and fairness of the assessment procedures
- sufficiency of evidence
- correctness of the interpretation
- accurateness of the recording and reporting of assessment results.

These factors must be included in the design of an RTO system to assure the quality of assessment. Minimum standards related to these factors are embodied in the ARF standards for RTOs. However there is a danger that they remain minimum standards, as some of the most valuable features such as activities for validating assessment will be costly to implement. In the effort to emphasise consistency rather than confidence, there may also be undue emphasis placed on strategies to standardise processes rather than provide resources to support assessors to perform their work with more confidence.

It is interesting to consider whether confidence in assessment decision making requires consistency of approach. The concept of consistency may ultimately be illusory as Schofield has suggested, but the confidence of providers, assessors and learners in assessment decision making certainly needs to be enhanced.

References

ANTA (2001) Australian recognition framework standards for registered training organisations (draft February), Brisbane.

Black H (1993) Sufficiency of evidence: what might be fair and defensible? Competence and Assessment, vol 20, pp 3-10.

Bloch B, Clayton B and Favero J (1995) Who assesses? In W C Hall (ed) Key aspects of competency-based assessment. Adelaide: National Centre for Vocational Education Research.

Clayton B, House R, Booth R and Roy S (2001, in press) Maximising confidence in assessment decision-making. Adelaide: National Centre for Vocational Education Research.

Docking R (1997) Assessor training programs: review of research. Adelaide: National Centre for Vocational Education Research.

DETYA (2001, in press) Quality assurance arrangements - assessment guide, Canberra.

Eraut M (1994) Developing professional knowledge and competence. London: The Farmer Press.

Griffin P, Gillis S, Keating J and Fennessy D (2001) Assessment and reporting of VET courses within Senior Secondary Certificates. Melbourne: Assessment Research Centre, Melbourne University.

Konrad J (1999) Assessment and verification of NVQs: policy and practice. Education-line: www.leeds.ac.uk/educol/documents/000000889.htm.

Lester S (1999) Vocational qualifications in practice and principle: lessons from agriculture, Research in Post-Compulsory Education, vol 4, no 1, pp 1-10.

Lester S (1996) Which way NVQs? Education, Training, Employment, December, pp 21-24.

NTFC (2000, unpublished) Consistency in competency based assessment. Brisbane: Australian National Training Authority.

QCA, XXX NVQ Monitoring report 1998/99. http://www.qca.org.uk/nvq-monitoring/98-audits.htm.

Schofield K (1999) A risky business - review of the quality of Tasmania's traineeship system. Hobart: OVET.

Smith L (2000) Impacting on the quality of assessment in VET in Queensland. Brisbane: DETIR.

Toop L, Gibb J and Worsnop P (1994) Assessment system design. Melbourne: Australian Government Publishing Service.

Contact details

Berwyn Clayton
Director
Centre Undertaking Research in Vocational Education (CURVE)
Canberra Institute of Technology
Ph: +61 2 62074844
Fax: + 61 2 62073322
Email: berwyn.clayton@cit.act.edu.au

Development of an industry training strategy for the abattoir industry in New South Wales

Andrew Clements

Geoff Speers (presenting author)

Riverina Industry Training Services Centre, New South Wales Department of Education and Training

This paper presents a model for the development of an industry training strategy. The model has essentially two parts: quantitative analysis of industry characteristics and qualitative analysis of information obtained through consultative processes, surveys and industry intelligence. The model also attempts to take into account the impact of equity considerations and supply-side and demand-side limitations on the training market.

The paper then outlines how this strategy might be implemented at a statewide level.

The model allows resource allocation to satisfy both economic and social justice outcomes. It also shows how a planning model can be used to form partnerships with diverse groups within industry and the community to achieve state and national objectives for vocational education and training (VET).

The NSW Meat Processing Industry

Consistent with the Meat Industry Training Advisory Council (MINTRAC), the meat processing industry covers abattoirs and boning rooms, smallgoods manufacturers and retail butchers and supermarkets. It is the largest sector of the food manufacturing industry and employs approximately 45 000 people nationally.

Animals processed in the industry include mainly cattle, sheep and pigs. Deer, goats, kangaroo, emu and other game are also processed for both Australian and international markets.

For the purposes of this Training Strategy and to be consistent with the relevant Cabinet Minute associated with the New South Wales (NSW) Meat Processing Industry Restructuring Program, the abattoir sector covering cattle, sheep and pigs was targeted.

Background

A Cabinet Minute proposing the establishment of a NSW Meat Industry Restructuring Program was prepared by the Hon Harry Woods, MP, Minister for Regional Development, Minister for Rural Affairs and Minister for Land and Water Conservation. The proposed Program covers a range of elements that include accreditation of employee competencies, occupational healthy and safety (OH & S) education, training and research and development.

On 20 November 2000, The Hon Bob Carr MP, Premier of NSW, announced a $12 million NSW Meat Processing Industry Restructuring Program to operate over a three-year period.

The NSW Meat Industry Restructuring Program is a NSW Government initiative which aims to assist meat processing companies, their employees and local/regional economies to manage the significant impact of the expected continued rationalisation of NSW abattoirs.

The NSW Department of Education and Training has expertise in assisting industries to restructure through the provision of training and related services. This expertise includes management of training under the Forest Industry Structural Adjustment Package (FISAP) and the provision of training and related services to the NSW coal mining industry under the NEXT STEP Program.

The Department has also separately identified training initiatives for the meat processing industry generally (hereafter referred to as the Training Strategy) that would be complementary to the NSW Meat Processing Industry Restructuring Program.

A research phase was seen as fundamental to establishing the scope of the Training Strategy and the key principles underpinning the strategy as well as identifying key stakeholders in the meat processing industry.

Rationale

The aim of the Training Strategy is to effectively target the needs of the industry and workers and ensure outcomes both in terms of industry productivity and established pathways for workers both within the industry as well as for opportunities in other sectors.

The industry is facing a number of challenges including the introduction of technology, safety standards, restructuring and the development and implementation of an effective training culture. The Training Strategy will effectively target existing training resources for the industry and upskill employees in a range of essential requirements including OH & S, supervision, quality assurance, meat safety, language and literacy, management, workplace assessment and training and information technology.

References and sources

A variety of principal information sources were used including those from the Australian Bureau of Statistics, Agriculture Fisheries Forestry Australia, Australian Meat and Livestock Corporation and the NSW Meat Industry Authority.

Consultation occurred with human resource personnel in abattoirs, workers and ex-workers in the industry and peak employer, employee and training bodies. These consultations used both survey and interview methods.

The diagram at the end of this paper shows how the model draws together planning information and translates this into training activity. It summarises the information inputs and shows their interrelationships and use in developing the training strategy.

The model presented above satisfies both the requirements of methodological robustness and integrity, and local ownership and responsiveness. Feedback at both the macro and micro level has been generally positive.

Factors determining training needs

The need for VET is essentially determined by a complex interaction of factors associated with the VET market. The VET market consists predominantly of various individuals, organisations and providers of VET programs and services who require learning outcomes associated with VET.

While the identification of factors determining training needs differ between regions, both existing evidence and experience suggest that a variety of these factors can be generally identified as determinants of training needs. An improved understanding of these factors at a regional level will serve to maximise the balance of both the delivery of equitable and cost-effective VET.

These determinants can be related to particular segments in the VET market and may be interactive but not necessarily exclusive or limited to:

VET market segment	**Possible determinants of training need**
Individuals	Personal development/career aspirations Unemployment/social status Financial status Geographic isolation Changing culture and social fashion Government policy
Organisations	Regional development initiatives Employment initiatives OH&S requirements Business profitability Economic/export competitiveness Business succession planning Technological change Industrial relations Workplace/organisational change Incentives and sponsorship Government policy
Providers	Demographic and socioeconomic characteristics Available resources (capital, curricula, human)

Timing of service delivery
Duplication of activity/services
Demand/unmet demand
Cross-sectoral arrangements
Special needs groups/target groups

Implementation of strategy

The critical stages of training strategy implementation are outlined below:

- Form Meat Processing Training Strategy Steering Group;
- Establish links and coordination processes with NSW Premier's Department in association with the NSW Meat Processing Industry Restructuring Program, especially in relation to case management processes;
- Agree and prioritise the identified training needs and available resources in conjunction with the identified Departmental assistance;
- Investigate the actions arising from matched Departmental services and industry training needs;
- Investigate any implications from the implementation of the *Queensland Meat Processing Industry Training Needs Analysis Report*;
- Develop guidelines and procedures for strategy and service implementation;
- Develop communication strategy and produce information materials;
- Hold information sessions/training for personnel involved in implementation and operation of strategy;
- Circulate information materials to relevant contacts and targeted meat workers;
- Conduct and administer assistance services; and
- Evaluate training strategy and services provided and administered.

Results of the research

A variety of training needs and requirements for the NSW meat processing industry have been identified through the research process. These needs can be summarised as:

- Increased provision and awareness of existing training pathways to the industry (eg prevocational training and apprenticeship and traineeship training);

- The development and encouragement of new training pathways and career paths within the industry, particularly for younger persons (eg options associated with VET in Schools where appropriate);
- The development and promotion of new qualifications and resource material associated with new training pathways for the industry, including professional development for Registered Training Organisations (RTOs) and New Apprenticeship Centres (NACs);
- Greater involvement of industry with issues associated with the regulation of providers and the delivery of training and assessment by RTOs;
- Consideration of opportunities associated with training infrastructure both within schools and in existing processing establishments/abattoirs;
- Case management associated with conducting skills audits for workers in abattoirs and other sectors of the meat processing industry.

Other case management is associated with structural adjustment assistance for targeted industry employees, who:

- have little or no experience in seeking work;
- have little or no externally recognised skills;
- may need their recognised skills updated;
- will need to acquire new skills for future employment, and
- will need assistance to participate in training.

This assistance will facilitate a number of pathways for individual target group employees through case management (which may not be mutually exclusive). These are:

- Pathways involving retraining options and skills recognition, in association with continuing and/or new employment opportunities within the meat processing industry;
- Pathways to self-employment or contract labour (including contract opportunities within the meat processing industry);
- Pathways to retirement from work; and
- Pathways to employment opportunities within other industries.

In this context of identified needs there are a number of specific services that the NSW Department of Education and Training (DET) will provide through programs largely administered by eleven Industry Training Services Centres (ITSCs) located throughout NSW. These services would be complementary to the NSW Meat

Processing Industry Restructuring Program endorsed by the Cabinet Office and Treasury.

Conclusion

It is evident that the NSW Meat Processing Industry has and is likely to experience structural change. Rationalisation within the industry will most likely lead to a net reduction in the number of abattoirs and employees required.

The potential reduction of employees within the industry and their propensity to relocate for reemployment is difficult to quantify.

The NSW DET has identified a number of services that can be applied to provide assistance to the industry. A large proportion of this assistance can also be coordinated with other State Government initiatives, in particular the NSW Meat Processing Industry Restructuring Program.

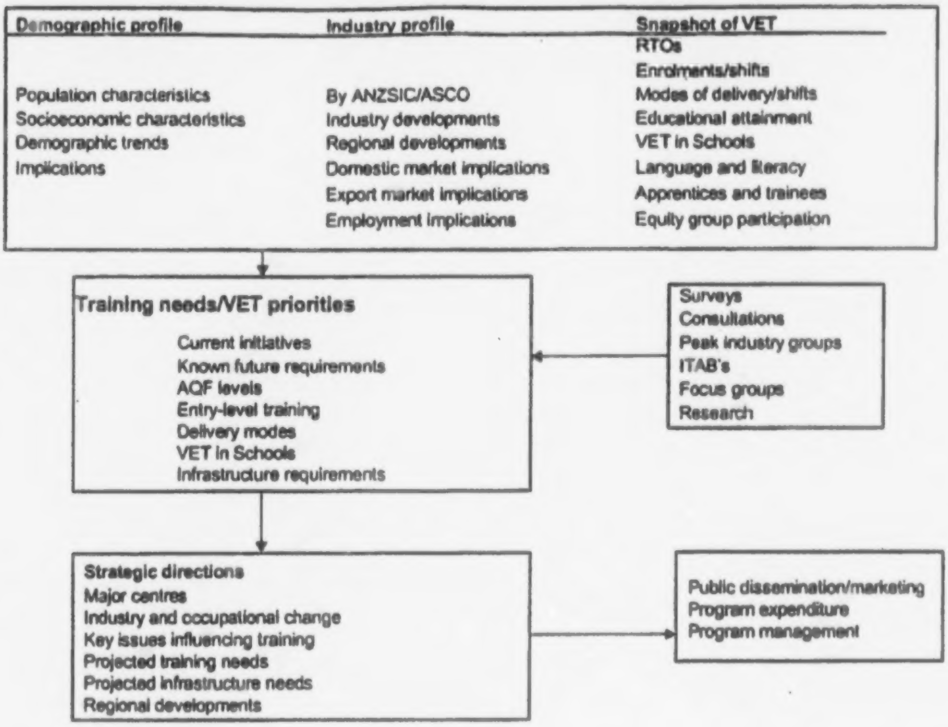
Whilst some of the services provided by the Department are aimed at improving and positioning the industry to be more productive, a large proportion will be focused in terms of individual employee case management.

The coordination of all services, including those available through the NSW Meat Processing Industry Restructuring Program, possibly by case managers, will be critical in the provision of the full suite of available services to industry.

Contact details

Geoff Speers
Senior Program Field Officer
Riverina Industry Training Services Centre
NSW Department of Education and Training
87 Forsyth Street
Wagga Wagga NSW 2650
Ph: +61 2 6921 1933
Fax: + 61 2 6921 8701
Email: geoff.speers@det.nsw.edu.au

Industry training model - how supply and demand fits together



Demographic profile
Population characteristics
Socioeconomic characteristics
Demographic trends
Implications

Industry profile
By ANZSIC/ASCO
Industry developments
Regional developments
Domestic market implications
Export market implications
Employment implications

Snapshot of VET
RTOs
Enrolments/shifts
Modes of delivery/shifts
Educational attainment
VET in Schools
Language and literacy
Apprentices and trainees
Equity group participation

Training needs/VET priorities
Current initiatives
Known future requirements
AQF levels
Entry-level training
Delivery modes
VET in Schools
Infrastructure requirements

Surveys
Consultations
Peak industry groups
ITAB's
Focus groups
Research

Strategic directions
Major centres
Industry and occupational change
Key issues influencing training
Projected training needs
Projected infrastructure needs
Regional developments

Public dissemination/marketing
Program expenditure
Program management

Reforming schools through innovative teaching

Jim Cumming and Christine Owen

Australian College of Education, Enterprise and Career Education

Foundation and Dusseldorp Skills Forum

Executive summary

This is a resource about innovative teaching. It profiles, analyses and celebrates the work of eight accomplished educators in Australia. Drawing on contemporary theories of innovation, teacher professionalism and school reform, this work provides a stimulus for some in-depth thinking about teaching in today's 'knowledge society'. For example, in the first decade of the twenty-first century, what should teaching look, sound and feel like? How should it be enacted? Who should be responsible for its quality?

This is unashamedly a 'good news' story in that it demonstrates the significant impact being generated by select innovative teachers in schools, as well as the wider communities in which they operate. The research on which this resource is based reveals that their work is having a positive influence on business people, community workers and retirees as much as it does on students, parents and colleagues.

However, this resource is not limited to the promulgation of good practice examples. More importantly, it is designed to actively engage key stakeholders in informed debate and collective action with a view to increasing the level of innovative teaching at all levels and in all sectors of education.

Given that innovative teachers *do* make a difference, a critical question emerging from this research is 'How can we generate a critical mass of these teachers, so that innovation becomes a defining feature of the educational landscape?'

Other research suggests that a number of challenges confront the education profession at present. It has been argued for some time that teachers' work needs to be reconceptualised; that the work of accomplished teachers needs to be recognised and certified; and that teacher education and professional development need to be reshaped.

In addition, there is evidence of increasing recognition in business and government circles that developing and sustaining innovation is critical to this country's future. It is argued that the advent of knowledge-based economies demands that we not only understand innovation, but that we also increase our capacity to develop and manage it.

This resource contains case studies of innovative educators working in secondary school communities. Each study constitutes a stand-alone snapshot of good practice in which the voices of students, colleagues, principals and community members illuminate teachers' work from different perspectives.

To some, this work may appear relatively unremarkable at first glance. For example, a practising teacher might well respond, 'Oh, I've used that technique'; 'My team has implemented that strategy'; or 'Our school introduced a program like that years ago'. To be sure, many of the ideas and the strategies recorded here are not necessarily new, groundbreaking or revolutionary, nor should they be viewed as potential panaceas or 'quick fixes' for student alienation or other deep-rooted issues in schools.

However, there are three points worthy of note regarding these case studies. First, those who have been profiled can be described as *ordinary teachers doing extraordinary things* in creative ways. While most are school-based with normal teaching loads, they are acknowledged as achieving higher-order outcomes for multiple audiences. Second, they have managed to *sustain their level of innovativeness* over an extended period. For some, this has been a case of 'swimming against the tide' - either at some personal cost or with limited support. Third, they *make innovative teaching look easy*. Those who have observed these educators at close range readily admit that while their work appears effortless, it actually represents quite a sophisticated technology that has taken some time and a good deal of hard work to refine to its current standard.

Individually and collectively, these case studies highlight the fact that quality teaching is a highly complex, demanding and interactive process. While there is a common perception in the community that 'anyone can teach', the reality is that not everyone can teach well. So what can we learn from those who have been identified by other professionals as being highly innovative teachers who are making such a difference in their schools and communities?

The key findings from this research reveal that the eight innovative educators exhibit a diverse range of strengths that reflect an enhanced level of teacher professionalism. In the concluding chapter, these strengths are listed in dot-point form under a set of headings that include attributes, skills, knowledge, values and strategies. One of the risks in categorising teachers' work in this way is that it can detract from the integrated and holistic manner in which quality teaching is enacted. It is possible that detailed lists can lead to protracted arguments over semantics. For example, 'Is a particular strength - say, 'lateral thinking' - an attribute, a skill or a strategy?' However, demonstration would appear to be more important than its classification. There is also potential for more heat than light to be generated by prolonged debate over the virtues of generic, subject-specific or developmental-level standards. They all have a place.

One of the main reasons for pursuing this categorisation of innovative teaching is to generate greater specificity, with a view to making good practice more *transparent*. The objective is to identify what is different about innovative educators, along with the means by which they ply their craft. Hence, the intended outcome is an increased capacity to distinguish between a teacher who is highly innovative and one who may be less so. At a practical level, listing the major strengths exhibited by innovative teachers provides a set of indicators by which quality or performance might be measured. For example, those wishing to demonstrate their expertise in innovative teaching could be invited to collect and present evidence in relation to such criteria.

The innovative educators profiled in this study exhibit a number of personal *attributes* including altruism, creativity and passion. A number of phrases captured during the research describe them as 'self-starters', 'ideas people' and 'highly-attuned'. Those who know these teachers well tend to explain how they are 'different' by focusing mainly on their personal qualities, raising the issue of whether exceptional teachers are born rather than made.

A second key finding is that these teachers demonstrate advanced *skills* in a number of areas including applied learning, standard setting and change management. A common feature is their capacity for enabling students to make 'connections' between key learning areas as well as to link aspects of their home, school and working lives. Colleagues and principals commented frequently on their vast repertoire of teaching strategies and their ability to draw from a big 'bag of tricks' in order to engage any student at a particular stage in his/her intellectual or social development. More significantly, however, is the extent to which these teachers are able to facilitate innovation and change, especially through the focusing of disparate energies and the development of teamwork for whole-school and other projects.

Third, innovative educators possess in-depth *knowledge* on a range of topics including innovation, pedagogy and professional development. While students and others frequently identify expertise in a key learning area as a strength of these teachers, this tends to be surpassed by their knowledge and understanding of those who are in their care. More than just simply establishing and maintaining good relationships, this involves comprehending theories of adolescence and the nuances of contemporary youth culture. Keeping up-to-date with current trends and developments within and beyond the education sector is also characteristic of these teachers.

Fourth, these teachers display core *values* that are synonymous with being a true professional. These include a total commitment to those they teach; a willingness to share their knowledge, skills and strategies with others; and an insatiable desire to improve their own practice and 'reinvent' themselves in response to new demands, challenges and opportunities. Innovative teachers are regarded as role models and mentors for others, within and beyond the schools in which they work. They follow a personal code of ethics and are invariably driven by what they consider to be in the best interests of their students. They also view themselves, and are seen by others, as actively contributing to school, civic and professional communities.

Fifth, these innovative educators employ a range of multi-faceted *strategies* including the creation of alliances, the marshalling of resources and the identification of advocates. Phrases captured during the research include 'pushing the boundaries', 'creating spaces' and 'value-adding'. What is interesting about the list of strategies that has been compiled is the extent to which it reflects a practical integration of the skills, knowledge and values identified above. For example, the 'building of communities' is a common strategy used by these educators to make the school more pro-active in the social and economic development of the town, municipality or shire of which it is part.

The resource concludes with a number of implications that are set in a context of 'Where to from here?'. It is suggested that further action is required to identify, recognise and sustain innovative teachers. There are calls for follow-up programs, training and ongoing research. The objective is to focus the attention of key stakeholders from business, community organisations, education systems and teacher training institutions with a view to working collectively to increase the level of innovative teaching nation-wide. If, as has been argued in a report to the Commonwealth government entitled *Innovation: unlocking the future* (2000), education has a pivotal role to play in developing an 'innovative culture' in this country, then there is no time to lose.

Innovative teaching

The work of eight innovative educators is listed below. Each case study represents an example of innovative teaching in a secondary school community. While the Project Reference Group endeavoured to generate diversity among those selected (eg with regard to length and type of teaching experience, location, system, gender etc) the studies should be seen as illustrative rather than representative. The examples of good practice are as follows:

Matching goals in enterprising ways - Jenifer Murdock (Hawker College, Australian Capital Territory)

- Initiating student-run businesses that provide services for the community and on-the-job training for student participants.

Community-based learning - Nigel Howard (Norwood-Morialta High School, South Australia)

- Supporting students to work in partnership with local organisations to promote community development.

Plan-it youth mentoring project - Sandra Wilson (Berkeley Vale Community High School, NSW)

- Engaging retired community members as mentors for year 10 students to research career options.

Computer-assisted language learning - Melissa Hughes (Shelford Anglican Girls School, Victoria)

- Using computer-assisted language learning to enable students to design and operate a Japanese 'virtual village'.

Improved practice through professional learning - John Eaton and Gemma Lawlor (Bridgetown High School, Western Australia)

- Applying educational theories in local contexts in ways that improve not only student outcomes but also those of their teaching colleagues.

Teaching through demonstration and fun - Mandy West (Queechy High School, Tasmania)

- Using performing arts as a means of engaging students in hands-on exercises that expand horizons and develop life skills.

Associated learning through emotional responses - Randall Clinch (Consultant)

- Employing a range of interactive techniques designed to enable students to choose their own thoughts, stimulate their emotions and determine their actions.

While seven of these educators are trained teachers, one is a consultant who offers services to schools on the basis of his experience in the youth sector. The Project Reference Group was keen to include in the case studies at least one example of a person from outside formal education using innovative strategies and techniques. This raises several issues including recognition of prior learning, training, certification and remuneration of innovative educators. It would appear that a major challenge for education authorities is to identify ways of ensuring that those from beyond the profession with demonstrated expertise in innovative teaching have opportunities to gain appropriate recognition or certification.

The educators profiled in these case studies are 'ordinary' teachers doing 'extraordinary' things in creative ways. They have come to the attention of the Project Reference Group via a range of means including nomination, referral and networking on the part of professional educators. It is readily acknowledged that there are highly innovative teachers in many other levels, sectors and settings in education. The hope of all those involved with this project is that this resource will stimulate the documentation and dissemination of further examples of good practice via websites and hard copy, along with more dynamic forms of professional development, mentoring and educational leadership in a variety of settings.

References

Bottery M (1996) The challenge to professionals from the new public management: implications for the teaching profession. Oxford Review of Education, vol 22, no 2, pp 179-195.

Cairney T (2000) The knowledge based economy: implications for vocational education and training. Sydney: Centre for Regional Research and Innovation, University of Western Sydney.

Cumming J and Carbines B (1997) Reforming schools through workplace learning. Sydney: National Schools Network.

Dinham S, Brennan K, Collier J, Deece A and Mulford D (2000) The secondary head of department: key link in the quality teaching and learning chain. Canberra: Australian College of Education.

Fullan M (1995) Reshaping the teaching profession. Melbourne: Incorporated Association of Registered Teachers of Victoria.

Fullan M (1991) What's worth fighting for? Working together for your school. Melbourne: Australian Council for Educational Administration.

Goodson I (1999) The crisis of educational change and the paradox of progressivism. Paper presented at the International Conference on 'The new professionalism in teaching: teacher education and teacher development in a changing world'. Hong Kong, January.

Hargreaves A (1994) Changing teachers, changing times: teacher's work and culture in the postmodern age. Toronto: University of Toronto Press.

Hargreaves D (1998) Creative professionalism: the role of teachers in the knowledge society. London: Demos.

Hargreaves D (1993) The new professionalism. London: Centre for Advanced Teaching Studies.

Industry Task Force on Leadership and Management Skills (1995) Enterprising nation: renewing Australia's managers to meet the challenges of the Asia-Pacific century (The Karpin Report). Canberra: Australian Government Printing Service.

Ingvarson L (1999) Professional certification: do we need it? Unicorn, vol 25, no 2, pp 5-12. Canberra: Australian College of Education.

Innovation Summit Implementation Group (2000) Innovation: unlocking the future. Final report, August. Canberra: ISIG.

Rosenholtz S J (1989) Teachers' workplace: the social organisation of schools. New York: Longman.

Sachs J (2000) The activist professional. Journal of Educational Change, vol 1, no 1, pp 77-95.

Sachs J (1998) The activist professional. Paper presented at the Australian Association for Research in Education, Adelaide, November-December.

Smyth J (1998) Schooling and enterprise in Australia: pause for a critical policy analysis. Paper presented to the Annual Meeting of the Australian Association for Research in Education, Adelaide, November-December.

Standards of Professional Practice for Accomplished Teaching in Australian Classrooms (2000) Canberra: Australian College of Education, Australian Curriculum Studies Association and Australian Association for Research in Education.

Wycoff J (2000) Input wanted: principles of innovation. The Innovation Network. http://www.thinksmart.com.au.

Contact details

Christine Owen

Email: cowen@austcolled.com.au

The river of learning in the workplace

Lester Davis

Thiess Pty Ltd

Stewart Hase

Southern Cross University, New South Wales

Using the metaphor of a river to describe continuous and lifelong learning, this paper details an action research project aimed at developing effective learning environments in a large, distributed organisation. This project is based on the theoretical assumptions of heutagogy (as opposed to pedagogy and andragogy), which is the study of self-determined learning. It is our belief that heutagogical approaches to learning are more likely to result in an increase in capability as well as competence. The concepts of heutagogy and capability and the research findings are discussed in detail, as well as the implications for vocational education and training.

The river of learning

Rivers are fascinating. Their mountain sources are thin trickles, cold and fresh, that merge into one as the river widens, becomes fuller and finds its way to the sea to be a rich estuary full of life and complete. Rivers meander and wind their way to the sea across all sorts of terrain, through all manner of climates. You can dip into a river anywhere and you can leave it when you will. And of course, it's not just a river - it gives birth to all manner of living things.

People know how to learn and are most likely to learn when there is context and meaning to the learning. Carl Rogers (1951) described this phenomenon in terms of the need for learning to be congruent with the self, the images we have of our experience and our relation to it. We do most of our learning outside of what are usually described as structured learning environments (this is an oxymoron of course). We also believe that this 'real life' learning is more resilient and more lasting. Another assumption we have made is that people in fact know how to learn. They may have forgotten how to do this because the education system makes them forget from about the age of five onwards. Until that time, we are excellent learners. This paper expands on this concept a little further and then describes an ongoing project of developing the river of learning in a large, distributed organisation.

Self-determined learning

Education has traditionally been seen as a pedagogic relationship between the teacher and the learner. It was always the teacher who decided *what* the learner needed to know, and indeed *how* the knowledge and skills should be taught. In the past thirty years or so there has been quite a revolution in education through research into how people learn, and resulting from this, further work on how teaching could and should be provided. While andragogy (Knowles 1970) provided many useful approaches for improving educational methodology, and indeed has been accepted almost universally, it still has connotations of a teacher-learner relationship.

Heutagogy (Hase and Kenyon 2000) is the study of self-determined learning and is concerned with how to harness the learning that occurs as a part of a person's total experience. Heutagogy is interested in approaches to learning that are not teacher-centred but person-centred. This idea is not new and draws on a humanistic theme that can be followed through the philosopher Heider (Emery 1974), phenomenology (Rogers 1951), systems thinking (Emery and Trist 1965), double loop and organisational learning (Argyris and Schon 1996), androgogy (Knowles 1984), learner-managed learning (Graves 1993; Long 1990), action learning (Kemmis and McTaggart 1998), capability (Stephenson 1992), and work-based learning (Gattegno 1996; Hase 1998), for example.

A more complete explanation and rationale for heutagogy can be found in a recent paper by Hase and Kenyon (2000).

Apart from the philosophical reason for looking at how to harness real learning in real situations, there is a more pragmatic reason, particularly for the vocational education and training sector, that has to do with the world in which we currently live. It is a world in which information is readily and easily accessible; change is so rapid that traditional methods of training and education are totally inadequate; discipline-based knowledge is inappropriate to prepare for living in modern communities and workplaces; learning is increasingly aligned with what we do; modern organisational structures require flexible learning practices; and there is a need for immediacy of learning.

It is our view that heutagogical approaches to learning will help people to remember how to learn and will better prepare them to manage in an increasingly complex world. The thrust that underscores these approaches is a desire to go beyond the simple acquisition of skills and knowledge as a learning experience. They emphasise a more holistic development in the learner of an independent capability (Stephenson, 1993), the capacity for questioning one's values and assumptions (Argyris and Schon 1996), and the critical role of the system-environment interface (Emery and Trist 1965).

The river of learning in an organisation

This case study concerns Thiess Contractors Proprietary Limited, an Australian mining and construction company. The company recognises the incredible importance of the capability of its workforce in relation to its competitiveness in a global environment. Thus, it has traditionally had a considerable commitment to training and human resource development. Over the past couple of years and with the support of the General Manager, Thiess has attempted to go beyond ensuring the competence (knowledge and skills) of its workforce (competence being an essential condition), to developing capability. Capable people are more likely to be creative; use their competencies in novel as well as familiar circumstances; know how to learn; work well in teams; and have strong self-efficacy (Stephenson 1993).

This project can best be described as action learning because it is cyclical and developmental. At the same time, there are elements of action research, because we have been documenting much of what has happened and attempting to make sense of the results in relation to current theory and practice.

However, given the quite reasonable constraints on the length of this paper, we will describe two major outcomes of the project so far.

The work activity briefing

During the past decade, Thiess has been experimenting with leading-edge inclusive communication and developmental processes. This work had its genesis in the series of Accords created between the Labor government of the 1980s and 1990s with the Australian Council of Trade Unions (ACTU), called Award Restructuring/ Workplace Reform programs. The first use of these processes for Thiess began in New South Wales (NSW) with the 1991 Junee Goal Project. The project was to build a modern, medium-security correctional facility in Junee, an area with high unemployment but a wide community of rural workers, railway trades and non-trade people. The project management sought to employ as many local residents as possible and to involve these workers in 'workplace teams'. These teams were given the task of work scheduling, programming, the skill development of their people, and accounting for the activities assigned to them.

This inclusive process was further refined and developed in other projects such as the RAAF Base Tindal 3C and the Gateway Motorway Extension Project. The process was then called a *work activity briefing* and had a more inclusive approach for the work activity participants, because the engineering personnel and the management/supervisory staff provided additional support. The *work activity briefing* had developed to where there was a formal skeleton around which critical information was hung. Such information as the task/activity description, the engineering detail, the risk analysis, the control requirements, the quality assurance requirement, the skill development needs and the action plan became points for dialogue and agreement. The outcome of the dialogue represented a *harvesting* of the available knowledge, skills and experiences that were requisite in the participants of the activity.

The work activity briefing process has been employed in a number of subsequent projects, and on each occasion it has been regarded by its participants as pivotal to the delivery of a project that has exceeded the expectations of the client in the areas of quality, time saving, cost reduction, industrial harmony and safety.

It is a well-known psychological phenomenon that is very difficult to change attitudes. Thus, shifting people from a tradition of developing and managing people by control to one of trust and empowerment will be a huge task. The quickest way to change attitudes is in fact through changes in behaviour. The work activity and pre-start meetings described below were a successful approach to this dilemma and are exemplars of shifting organisations to the recognition of how people really learn.

The work activity briefing is a form of self-managing work team. This activity involves all participants in the activity including engineers, supervisors, specialist support personnel workers, and in some cases, suppliers and subcontractors.

Such teams have become popular, because they offer a range of advantages, such as synergy based on the ability to access a pool of experience and knowledge resident within the team. They also offer an ability to rapidly inform and develop knowledge within the group and an increased level of involvement/commitment on the part of the group members. The aim of the activity is to identify and apply the best solution to a problem or opportunity within the project context.

In sociotechnical systems, the parlance of self-managing teams provide a mechanism by which the technical needs of work and the social needs of the individual and group can be drawn together to improve the quality of working life. The work activity briefing (WAB) process employed with this organisation brings together all parties involved in the activity. With the use of a proforma document, the essential pieces of information relating the activity - including the technical information, risks, safety considerations, previous relevant experience and skills that exist/are missing - are included in the spaces provided. Having attached all the relevant information, a discussion or series of discussions together with any developmental work are completed. The result is a plan for the achievement that represents the best option possible, within the project context. This document is then signed by all participants who use it as the 'blueprint' for the activity.

The power relationship changes for the project manager and the engineers, as the workers are able to provide new knowledge based on their experience, which is outside the knowledge of the engineers, such that the power relationship changes for them. The shifts in how the workers are now 'seen' suggest a level of equality and acceptance. A change in the normal 'truth' applied by management towards labour is changed, and thereby the manager or engineer is changed.

Another aspect of the WAB worthy of analysis is the document produced as part of the dialogue between the active parties. The document becomes a plan and identifies the activities, the parties involved, the actions required by them and the roles and responsibilities of the parties. It might also list the resources, together with timings and coordination of data. In essence, the document will 'govern' the activity.

Using this description, we can see that the requirements and specifications of the plan will govern the parties in the activity - and therefore their actions. The managers and supervisors will exercise power in coordinating the arrival of materials, and workers will exercise power through the application of their skills to the tasks without having to wait for instructions and directions. Indeed, the parties will in fact regulate themselves within the terms of the plan and the project context.

With the application of the signature of each participant of the WAB, each is identified as being a party to the knowledge and power that can be exercised to achieve the desired outcome.

Another aspect of the WAB worthy of discussion is the taken-for-granted assumptions that also govern the bodies involved in the activity. For example, those who are part of the dialogue and certainly those who sign the document take for granted that each participant will do their best to achieve the desired outcome; will exhibit a level of professionalism and skill that will deliver the quality specified; and will demonstrate a level of commitment that will ensure that obstacles that might have proven a limiting factor under ordinary circumstances will not prevent the parties from achieving the deadlines.

An extension of the WAB has been the establishment of pre-start briefings, in which teams meet at the start of the shift and discuss issues. On conception, the primary aim was work safety, but soon the briefings involved discussing the day's activities and what could be learned from the previous day. Interviews with participants (Hase et al 1998) revealed a high level of empowerment, involvement and sense of commitment to the work team. It was clear that learning was taking place even though it was not credentialed, and that the learning was an inherent part of what they did rather than an add-on.

What we see happening with work activity and with pre-start briefings is the development of elements of capability such as: learning to learn; higher self-efficacy; using competency in novel situations; creativity; and working in teams. The learning and management are planned but the processes are person-centred.

Extending the training boundary through the Frontline Management Initiative (FMI)

This is an example of a group of workers who identified their position in relation to their colleagues and found that they needed to advance their individual and collective knowledge and skills in order to keep up. The program that follows was one where they had control of the methods, the input, the rate of activity and the agenda. These were negotiated and agreed upon.

Phase 1

Supervisors (forepersons/superintendents) working for Thiess expressed a need to engage in some form of training that would develop their skills. The FMI program was eventually selected and Kangaroo Point TAFE institute was engaged to provide the assessment processes so that formal credit could be provided.

Three sessions were used to discuss the program to identify in detail the competency standards and then assess each supervisor against the competencies at the diploma level.

The result was a gaining of clear credit in some competencies, an equally clear indication that there was not credit to be given in some and an indication that some skills were being used but the underpinning knowledge supporting those skills was missing.

The decision was therefore made to enhance those skills that were not complete and to develop the knowledge and skills in those that were completely deficient.

Phase 2

A meeting was convened where all parties discussed the various options available to them. The key stakeholders in this meeting were the participants in the program. Of all the options, the supervisors decided that 'a little often' would be easier to handle than an absence from work for even one day.

An after-hours workshop approach was used, in which the supervisors gathered for two hours, usually on a Monday, with the Manager for Training and the site Training Officer. A coaching/facilitating role was used to urge, inform and provoke the supervisors to explore the references and their own experiences.

The supervisors were given control over the sequence, the subject choice and workshop agenda. In this way, they 'owned' the process. The only imposition was that the first subject for exploration be leadership. Our argument for this was that all subjects to be explored have their foundations in leadership. Interestingly, the tension between leadership/management was always running through the debates and assignments. All assignments were practical in nature and based in the work they were actually doing on-site rather than invoked by an external examiner.

Each week a new subject area was explored and the next subject chosen for the following week. Each week there was also a general process for reporting back, which was controlled by the supervisors in which each would share how the assignment had gone during the week. In each assignment, the subject area was to be used to improve the project, its processes or the workforce.

Towards the end of the project, the supervisors, by reviewing their progress, realised that the time available would not be sufficient to completed the outstanding skill/knowledge development. They determined that they would devote additional time to the workshops following a negotiation with the facilitators. An interesting trade-off was that they would need to negotiate with the project manager for an evening meal. The test of the skill of the negotiators was evaluated by their peers - the test being the quality of the meal.

At the completion of Phase 2, the Kangaroo Point TAFE re-assessed each supervisor to determine the progress made.

Phase 3

The original assessor was used to determine if progress had been made that was sufficient to gain the incomplete and missing competencies. Each supervisor was found to be competent and a diploma was issued at a graduation ceremony.

On review, the supervisors were strong in their praise of the processes of learning they had gone through, the skills and knowledge they had obtained and its positive effects on production, safety and work relations with the workforce and subcontractors. There is anecdotal evidence from discussion with the workforce that an almost 'road to Damascus' style of change had come about in some supervisors. Even the well regarded supervisors had been observed to have improved.

But the greatest comments came from the supervisors themselves when they declared that whilst they had believed that they had been acting as a team prior to the learning program, their greatest lesson came from the experiences throughout the program that converted them into a supporting team, operating to assist each other.

A river of learning in vocational education and training

Heutagogical approaches to vocational education and training recognise the critical importance of the learner in all aspects - not just the teaching - of the learning process. The aim is to enable people to remember how to learn and facilitate the development of capability. Thus, the major stakeholder is involved in the determination of learning objectives and how these may be achieved. Clearly this is a negotiated experience if formal learning is involved. So, the emphasis is on process rather than outcome. By being person-centred, ownership over the learning is enhanced as well as the likelihood that the learning will in fact be meaningful.

Most evaluations of learning occur at the end of some sort of program. This approach suggests that evaluation is ongoing and formative rather than summative, in similar ways to action learning processes. This means that programs need to be flexible enough to change. In non-formal learning settings, such as the day-to-day activity in the workplace, it is a question of designing ways for people to get together and harness their learning in relation to current projects.

There is an assumption in all of this that while competence in a particular area is essential, there is a need to move beyond knowledge and skills which really measure the past, towards a capability that is preparation for the future.

There are now many good examples of workplace learning in the vocational education and training sector. Usually these involve projects at some work-based level as a means of assessment and facilitated learning, as opposed to teaching. The negotiated design of relevant assessment between the learner and facilitator is essential if the learning is to be at all relevant and person-centred. The guru factor is removed.

It is surprising the extent to which effort is put into designing what are purported to be self-directed learning materials in print form that now appear on the web as 'online learning'. Most learning materials of this form are in fact teacher-centred rather than self-directed and usually consist of directed reading, content and concept summaries and then activities, or some such combination. A heutagogical approach emphasises the provision of resources rather than content. If an outcome or assessment is designed in the right kind of way (and negotiated) and a few signposts are provided, learners have to try and make sense of the topic or issue and come to their own conclusions (which they will do anyway despite what the teacher says). Learner-directed questions become the norm, rather than teacher-directed answers.

Team-based approaches to learning assist people to learn how to cooperate in teams. However, there is not much point in this process if, in fact, assessment is designed as competitive rather than cooperative. Again, negotiation is a critical skill and needs to be as much a win-win process as possible.

As Dawkins has suggested, answers are easy to find; it is knowing what questions to ask that is the real limit to our understanding. A real challenge to the designers of learning experiences - whether they are formal or informal - is to be creative enough to have learners ask questions about the universe they inhabit. Our education and training and management systems are often designed in such a way as to limit this kind of creative thinking. These systems would rather provide people with the question and the answer together as a learning package. Heutagogical approaches suggest a more active role for the learner.

It's interesting how much tacit learning people have about all sorts of things, yet they rarely articulate it. One way of enhancing learning is to access this tacit learning people have and then have them question and improve it in new ways that make sense to them. The key to this is how to create opportunities in everyday work environments where this can happen, without having to resort to classrooms and the internet. One of the most common reasons that I hear about why workers do not access formal training programs is that there is so little 'down-time' to do so; there are not enough rainy days. Making learning an integral part of day-to-day work and finding ways to harness that learning and make sense of it is one of the most critical challenges that faces educators and managers in modern organisations.

Summary

People know how to learn; they did it from birth until they went to school. It's a question of helping them remember how to do it. We need to help people have confidence in their perceptions and question their interpretation of reality, within a framework of competence.

It is worth remembering that a lake is not a river.

References

Argyris C and Schon D (1996) Organisational learning II. Reading: Addison-Wesley.

Cairns L G and Hase S. Capability and re-engineering in educational change. Paper presented at the second ACEID-UNESCO International Conference: Re-engineering for Change: Educational Innovation for Development, Bangkok, August.

Cohen S G and Ledford S G (1994) The effectiveness of self managing teams: a quasi-experiment. Human Relations, vol 47, no 1, pp 13-43.

Emery F (1974, unpublished) Educational paradigms.

Emery F and Trist E (1965) The causal texture of organisations, Human Relations, vol 18, pp 21-32.

Hase S and Davis L (1999) From competence to capability: the implications for human resource development and management, Association of International Management, Seventeenth Annual Conference, San Diego, August.

Fiske S T and Taylor S E (1991) Social cognition. New York: McGraw-Hill.

Fosnot C T (1996) Constructivism: theory, perspective and practice. New York: Teachers College Press.

Graves N (ed) (1993) Learner managed learning: practice, theory and policy. Leeds: WEF and HEC.

Hase S (1998) Work-based learning for learning organisations. In J Stephenson and M Yorke (eds) Capability and quality in higher education. London: Kogan Page.

Hase S and Kenyon C (2000) From andragogy to heutagogy. Ultibase, Royal Melbourne Institute of Technology, December.

Hase S, Cairns L G and Malloch M (1998) Capable organisations: the implications for vocational education and training. Adelaide: Australian National Training Authority.

Hewitt J P (1997) Self and society: a symbolic interactionist social psychology (seventh edition). Boston: Allyn and Bacon.

Kemmis S and McTaggart R (1988) The action research planner. Geelong: Deakin University Press.

Knowles M (1970) The modern practice of adult education: andragogy versus pedagogy. New York: Associated Press.

Long D (1990) Learner managed learning: the key to lifelong learning and development. New York: Kogan Page.

Rogers C R (1951) Client centred therapy. Boston: Houghton Mifflin.

Saul J R (1997) The unconscious civilization. Penguin: Ringwood.

Stephenson J (1994) Capability and competence: are they the same and does it matter? Capability, vol 1, no 1, pp 3-4.

Stephenson J and Weil S (1992) Quality in learning: a capability approach in higher education. London: Kogan Page.

Contact details

Stewart Hase
Associate Professor
Southern Cross University
PO Box 157
Lismore 2480 NSW
Ph: +61 2 6620 3166
Email: shase@scu.edu.au

Quality control and employability: are the parameters of VET in Germany's Dual System facing severe challenges?

Thomas Deissinger

University of Konstanz (Germany)

All around the world employers' participation seems to be one of the crucial problem areas of vocational education and training (VET) development, especially when it comes to linking it to quality control and general standards of competence. One of the interesting questions to be addressed towards the German system thus may be why employers actually offer traineeships on such a highly standardised level, but also how current changes within the economic environment of VET may exert pressure on the Dual System in terms of more flexible training schemes. My major proposition is that dual training arrangements alone do neither necessarily solve quality problems in the delivery of VET nor improve VET links to the labour market. An essential strategy should be to further develop holistic training courses linked to apprenticeship models and embed both into a Dual System and a comprehensive system of quality control of VET.

Basic organisation of the VET system in Germany

Dual apprenticeships in Germany exist in nearly all branches of the economy including the professions and parts of the civil service. In 1999, some 630,000 young people took up an apprenticeship (for figures see Bundesministerium für Bildung und Forschung 2000). All in all, more than 1.6 million young people - with a female share of 40% - are learning their trades through the Dual System. In contrast, in England and Wales, for example, the number of Modern Apprenticeship participants stood at just 119,000 in March 1998 (Ryan 2001).

Apprentices come from different educational backgrounds although most have an intermediate or lower secondary school certificate. In recent years, the number of grammar school leavers taking up DTS training has risen and now stands at 16.8% (Bundesministerium für Bildung und Forschung 2000).

The German Dual System is first of all an alternating training structure – which means that training takes place in a company providing the apprenticeship and in a compulsory vocational part-time school (which accounts for one to two days of the weekly training provision). Secondly, the German system is rooted in an 'occupation-orientated' or genuinely 'vocational' training culture; vocationalism in the German meaning of the term stands for integral qualifications based on uniform training schemes and highly standardised examination procedures (Benner 1977). This implies that training is indeed workplace-led and predominantly practical, by stressing the importance of work experience during the training period. At the same time, however, the system works in accordance with skill requirements defined 'around the workplace' (Deissinger 1998; Harney 1985).

Moreover, the Dual System is determined by the involvement of the federal and state administration which makes occupational standards and conditions of skilled apprenticeship legally enforceable as well as marketable (Raggatt 1988). At the same time, the German 'training culture' (Brown and Evans 1994) is based on the notion that vocational training should not only be interpreted as a contractual duty but also as an educational process.

Finally, the fact that the state's function is actually restricted to securing quality standards in a predominantly formal manner makes the principle of consensus perceptively one of the long-standing parameters of dual training in Germany. This means that public and private as well as semi-private institutions have established various forms of cooperation within the system and, even more importantly, that the social partners normally take the initiative when it comes to defining a training ordinance (Benner 1984).

Apart from dual apprenticeship, the German VET system offers school-based, full-time courses for young people of which only a minority however lead to a work-related qualification. In the vocational full-time schools (some 300,000 pupils), 40% of students obtain a qualification outside the system of recognised skilled qualifications, but their number only amounts to less than 10% in relation to apprentices in the Dual System. Therefore it is correct to label the Dual System the core segment within German VET when it comes to delivering recognised labour-market relevant vocational qualifications. As a matter of fact, according to the Vocational Training Act, qualifications may be obtained in a vocational full-time school as well, but only some 33,000 students actually attend these schools in specific occupational areas. The overall acceptance of the DTS as the major route for non-academic training is also backed by the fact that the system of skilled occupations based on dual training is virtually an exclusive route, as there are no other options of company-based training available which would find acceptance on the labour market.

Apprenticeships in the Dual System of VET

The vocational principle and schemes of VET

The vocational or occupational aspect of training already mentioned is reflected through the structural features of the Dual System. It incorporates a specific quality of didactical as well as institutional arrangements which determine the 'application requirements' for qualified labour (Kutscha 1992, p 537):

- The idea of an 'occupation' refers to 'more or less complex combinations of special achievements' institutionally fixed and characterised by the use of related qualifications typical of the respective occupation. Therefore they are designed to fulfil the functional requirements of the division of labour (Zabeck 1991, p 559).

- Occupations are integrally structured; they consist of 'relatively job-independent but nonetheless job-relevant patterns of labour' whose branch and individual value is determined by being offered on the labour market as 'containing special qualities' (Beck et al 1980, p 20ff). This means that they are basically non-modular patterns of skills and knowledge.

- Occupations exist not only as 'gainful' or 'grown-up employment' but as 'skilled occupations', ie they are the starting point as well as the target of the training process whose 'organisational picture' (Brater 1981, p 32) is standardised by state statutes and thus significantly removed from the limitations and functionalisation of individual firms.

- State-standardised 'skilled occupations' are the framework of a standardised training course of set duration in which the quantity and quality of the acquired skills and knowledge is supervised and validated through intermediate and final examinations as well as certified in a way acceptable to the market.

The conditions of skilled apprenticeship hence are closely linked with the prerequisite of homogeneous training schemes based on governmental training ordinances. The mandatory contents of a training ordinance are specified in the Vocational Training Act of 1969 (Deissinger 1996). The so-called 'principle of exclusiveness' makes sure that training ordinances represent the only way leading young people into skilled employment. The idea behind this strict principle is based on the conviction that the training course should pin companies down to the skill range of an occupation which is marketable beyond the training company itself (Beck et al 1980). The procedure which leads to training ordinances claims to be reality-based and tries to take account of newly developing job requirements stimulated by organisational and technological changes. Since the passing of the Vocational Training Act, some 250 recognised skilled occupations 'have been based on new 'training ordinances' following the vocational principle. They apply to 97% of all apprentices. At present the number of existing skilled occupations amounts to 356. Training ordinances set up the didactical pattern of the qualification process leading to an examination before a competent authority' (Benner 1977).

Three basic schemes may be distinguished:

- The vast majority of training schemes are designed as 'mono occupations' (type 1), not allowing for specialisation or differentiation of training time or training content. It is assumed that a broad basis of elementary vocational qualifications supports a maximum of flexibility and mobility between different workplaces and firms.

- A similar understanding is used in the training schemes within the metal and electrical sectors referred to as 'specialised basic occupations' (type 2) that were issued in the late eighties; specialisation takes place after an initial training period of normally one year which is common to a range of interrelated occupations.

- Even stage training courses (type 3) taking account of two qualification levels are based on the assumption that skills at each level must be uniform and marketable by representing an occupational standard, not just a bundle of specific competences.

The vocational or occupational principle (Berufsprinzip) is mirrored in the facets of the Dual System in so far as training schemes (which also determine the school curricula) are specified along the lines of conventional patterns of consensus finding among social partners, which are assisted by an umbrella function of the federal educational administration represented by the Federal Institute of Vocational Training. However, only two thirds of the syllabus used in vocational part-time schools refer to vocational subjects, as general education is a natural component of the curriculum. The latter is also underlined by the fact that legal foundations for dual training stem from different backgrounds. Whereas part-time school attendance is enforced by the educational law, the Vocational Training Act is a specified labour or contractual law which has been amended by public regulations such as chamber supervision of training and prescriptions of quality control in terms of trainers' qualifications and training contents. As to the dual principle, it should be noted that cooperation between the learning venues has always been considered an issue of concern in the scientific community (Euler 1999). However, there are no institutionalised forms of cooperation on a large scale in the German system. It highly depends on local schools and companies in the way they coordinate their training beyond what is prescribed in the training ordinances.

Employer commitment within the Dual System

The training market in Germany 'has the character of a suppliers' market' (Greinert 1994, p 80). Companies provide training opportunities on a totally voluntary basis but in structural terms they are by far the most important learning venues in the Dual System, as two thirds of the training time is spent at the workplace or in training workshops. Also, in terms of the financial burden, companies shoulder the lion's share of training costs. In 1999, companies invested nearly 40 billion Marks into the Dual System, while the contribution of the federal and state governments amounted to a comparatively low 5.4 billion Marks (Bundesministerium für Bildung und Forschung 2000, p 122). While the overall training quota in Germany is only 24.2% (1998), big companies train to a very large extent; 69.7% of companies with between 50 and 499 employees took part in the Dual System in 1998 and 93.8% of companies with 500+ employees entered the training boat. At the same time, however, it needs to be said that it is in the craft sector with its many small companies that training has a long-standing tradition, and that some 600,000 young people out of the total of 1.6 million trained in the Dual System get their training in a craft company under the supervision of a qualified master craftsperson.

The cost argument can be found among the most important reasons which companies report for not entering training. The panel survey published by the German Labour Office Research Unit sees the financial aspect of DTS training at nearly 38% , while 28.6% of companies say that training is too burdening and complicated for them, but only 12.5% complain about applicants' educational background or social skills. In a similar way, it would be wrong to assume that training under private conditions could be carried out in a homogeneous manner. In-company training differs by structure, quality and also quantity, depending on the situation on the labour market. As a matter of fact, two basic types of in-company VET may be distinguished.

Firstly, there is training that is part of the working process. This saves the enterprise money because no separate training infrastructure is needed. Secondly, there is training that is pursued in a more or less systematic way and mostly conducted out of the workplace - ie in a specific training environment, such as a training workshop or training plant. This VET naturally becomes more costly for the firm (Greinert 1994, p 91).

In the case of high-quality technical training in large enterprises, such as metalworking and engineering, industrial training is based on a broad infrastructure that includes full-time trainers, sophisticated learning material, project work and theoretical lessons. This training is selective, as recruitment is based on aptitude tests and apprentices are expected to have passed high-quality school exams. Training of this type is highly standardised through clear-cut rotation schemes which channel the apprentice through the different departments and workshops of the company. In the case of commercial occupations, such as banking and insurance, training normally is also highly standardised once it is carried out in bigger enterprises such as the major banks. It differs from unsystematic training, because it stresses theoretical skills in the learning process and thus tries to bridge the gap between school and company, which is often seen as one of the deficit areas within the Dual System.

On the opposite side, in the craft sector, training appears to be closely attached to daily working routines and therefore has traditionally been labelled 'laissez-faire training' or 'training en passant'. As a matter of fact, in the sixties, the so-called 'apprenticeship issue' was triggered as an issue of public and political concern because critics of the Dual System claimed that most traineeships never reached a reasonable systematic or pedagogical level. Here training is certainly in danger of missing the comprehensive scope of the training occupation and of failing to provide systematic insight into the field of work, as the latter is basically left to the vocational school.

The functional contribution of the Chamber Organisation to quality control within the Dual System

All apprenticeships have to be based on a training contract or apprenticeship indenture. It is the Vocational Training Act which makes general provisions with respect to the structure and duration of the training period, the time devoted to training every day, the apprentice's pay (subject to collective bargaining) as well as his or her rights and duties (Deissinger 1996). The essentials concerning the training relationship between the training company and the trainee or apprentice must be laid down in writing (Greinert 1994, pp 86f). The contract obliges the training employer, above all, to ensure that the necessary abilities and knowledge be imparted to the apprentice. This means that training has to be purposeful and organised in accordance with the formal training objective that consists of passing the examination before the chamber. The educational content of the indenture may be measured by the emphasis the Act places on the requirement of skilled training personnel as well as by the fact that there is an obligation of the training firm to see that the trainee is encouraged to develop his/her personality and that he/she is protected from physical or moral danger.

Therefore, all companies in Germany are legally bound to a system which prevents them from training young people simply in accordance with their economic or technological needs. The training log book, which the apprentice has to keep, must be regularly checked and signed by the person - a trainer or master - who is in charge of instructing and monitoring the apprentice in the training firm. Weaknesses and abuses of in-company training can be lamented before the chamber from either side. Moreover, apprentices must not be treated as ordinary employees; they shall only be entrusted with work related to the purpose of their training and commensurate with their powers. Firms' duties also include the releasing of trainees from work both for attendance at the vocational school and for sitting examinations. On the other hand, apprentices must also comply with certain requirements concerning their behaviour, particularly their duty to attend the vocational school. Hence, the notion of DTS training is clearly reflected in the legal provisions governing the in-company part of the Dual System.

It was with the so-called Craft Protection Act in 1897 that the contours of the modern German DTS emerged. The regional craft chambers as well as the local guilds were installed as major agents of training which, in particular, meant that they were authorised to hold examinations for 'journeymen' and masters. The notion of the skilled craftsperson thus became rooted within a framework of self-government based on economic law. The Act also confined the technical qualification required for the training of apprentices to skilled 'journeymen' of at least 24 years of age who had either served a three-year apprenticeship or pursued their trades for at least five years as independent artisans. Indentures became general practice in the craft sector, as well as the three-year training period (Deissinger 1994). Only after the First World War, industrial employers' organisations began to work out training profiles for their branches and occupations. Their attempt to establish a mode of training apart from the craft sector was more apparently linked to the idea of systematised training schemes than to vocational traditions (Schütte 1992, pp 79ff).

However, from the mid-twenties onwards, the newly established chambers of industry and commerce embarked on holding examinations for industrial workers, which until then had been the exclusive right of the craft chambers (Muth 1985). Despite its more modern character, industrial training factually copied the corporatist framework and the occupational orientation of training. At the same time the role of the state remained that of a sanctioning agent. The dominant feature of in-company training in Germany up to 1969, when the Vocational Training Act came into operation, can be seen in the sole responsibility of firms and chambers - clearly a tribute to classical apprenticeship as it had been revitalised in the late nineteenth century (Zabeck 1975).

The specific combination of traditional apprenticeship features, standardisation and state quality control becomes manifest in the Vocational Training Act which exposes the chambers as crucial agents of VET (Deissinger 1996).

Links of VET to the labour market

The share of apprentices among employees in the German economy is around 5%. Hereby, the distribution among companies of different size is fairly similar, although smaller companies on average take a larger proportion of trainees in relation to their employees. In 1998, 52% of apprentices received their training in companies with up to 50 employees while 48% trained in firms with a workforce of more than 50 (Bundesministerium für Bildung und Forschung 2000, p 124). Some 50% of German companies possess the qualifications needed to take apprentices. This does not mean that all these firms actually take part in the Dual System. In 1998, some 24% of all German companies offered apprenticeships to the market (Bundesministerium für Bildung und Forschung 2000, p 128). The inclination to establish training opportunities on the side of German companies declined in the nineties, although now, with the economy producing more steam, the situation on the training market - clearly dependent on the general constitution of the labour market - has improved against the late nineties.

Against the background of some 630,000 new training contracts in 1999, the number of unprovided young people (in the whole of Germany) went down by 18%, as against 1998. On 5 October 2000, the Federal Ministry of Education reported in a press release that the number of school-leavers still seeking a traineeship had decreased even by 20% against 1999 (Pressemitteilung no 156/2000, vom 5.10.2000). Nevertheless, the Ministry points out that the losses of training places produced in the nineties have not yet been compensated. And it should also be noted that for demographic reasons demand for training places is expected to rise up to 700,000 per year by the year 2005 (Bundesministerium für Bildung und Forschung 2000, p 10). Therefore the Federal Government has made it clear that it sees the situation still far from being satisfactory, as steps to cure the unstable situation on the training market in the new federal states still require apprenticeship subsidies and supra-plant training arrangements. As a matter of fact, the fragile economic framework in the east has made it necessary to pump public subsidies into training schemes which are not linked to the Dual System directly but have been created for the purpose of establishing alternative ways of vocational preparation and integration. It is apparent from this that Germany's VET system remains exposed to structural and regional frictions and under pressure from external developments.

While in the craft sector the number of new apprenticeships in 1999 fell slightly, it rose by 45.3% in the new IT occupations. As unemployment certainly produces particular strain for the training system, the problems at 'threshold two', from training into employment, have sharpened in recent years. Although the training system and the employment sector are bound by a strong professional or vocational link (Deissinger 1998; Konietzka and Lempert 1998; Maurice 1993), career opportunities in the nineties, even if grounded in skilled training, were clearly more exposed to labour market restraints than in former decades (Timmermann 1994, pp 81 ff). The Federal Labour Office reports that youth unemployment (under 25) rose from 8.5% in 1993 to 12.2% in 1997, although at February 2001 it was again at 10.1%. In general, however, unemployed people under 25 suffer unemployment for a shorter period than the average unemployed person. This does not compensate for the fact that, in 1997, 27% of apprentices in the old federal states and 39% in the new states became unemployed at the end of their training course (Bundesministerium für Bildung und Forschung 1999, pp 146-148).

Another important aspect illustrating the links between training and the labour market is the rate of take-over from apprenticeship into regular full-time employment within the training firm, which has always been considered one of the major advantages of German dual training. This rate naturally differs among the various sectors of the economy and is reported to be highest in primary industries such as mining and energy, as well as in the banking and insurance sector. Normally, take-over in bigger companies with more than 500 employees is higher than in small-sized enterprises with fewer than 10 employees (73.3% as against 41.9% in 1997 in the old federal states). The average rate of take-over into salaried employment in the training company is 58% (Bundesministerium für Bildung und Forschung 2000, p 154). However, it should not be ignored that in the new federal states, take-over is lower than on average (just 46%). And there are also striking differences between the banking and insurance sector with more than 80%, and eg hotel and catering with a meagre 37%.

Against this background, it is obvious that unemployment rates naturally differ from branch to branch as there is no guarantee to actually enter employment successfully after training. Because training of course is an economic and financial issue for any company, it may be said that once young people take the hurdle into apprenticeship they have good employment prospects, since the training market undoubtedly functions as a 'pre-selection market' for future employees.

Despite all of these frictions, the German economy seems prepared to absorb qualified labour to a large extent. According to a recent survey carried out for the Institute of the German Economy, apprenticeship leavers will have the best opportunities to find a job among all graduates - both academic and non-academic. 42% of German companies are actually intending to augment their apprenticed labour force, while 38% expect to fill up their labour stock with academically qualified personnel. And it seems to be a positive signal from the training market that while new training contracts in general rose by 2% in the East and 3% in the West, IT traineeships jumped up by 45%. At the same time, the stock of young people who could not get an apprenticeship has never been so low since 1993.

At the same time, however, it is expected that every year some 100,000 young people will leave general education without a formal qualification (Beckers 1998, p 16) and their situation appears to be influenced by at least three structural factors.

Firstly, with the emergence of the new technologies and the disappearance of old-established training occupations, the lower segment of skilled practical work has been shrinking in quantitative terms. In a 'globalising' economic environment, this means that income and career opportunities for young people with minor or no general or vocational qualifications are bound to decrease, although the craft sector has recently reported, for the first time in many years, an oversupply of training places, even in the East of Germany.

However, the new occupational profiles, designed and decreed in the past fifteen years, have proven too demanding for the 'weaker' learners. Consequently, companies become more and more selective as they act in a training market where the supply of training places fails to meet the demand quite regularly.

Regional diversity, which has always led to imbalances in Germany's training statistics, seems to aggravate the situation, as young people looking for an apprenticeship placement in the East of Germany (the new federal states) have to find their way into a labour and training market which is tighter and less accessible than in the Western states.

Against this background, reforming the system by modifying and extending the range of formal training opportunities appears at first glance a reasonable strategy to avoid youth unemployment due to the partial failure of the VET system. However, whereas upgrading the system by offering new exacting training schemes has been enforced in the past two decades, the lower end of the qualification ladder has been neglected. One of the more recent innovations has been carried out in the Information Technology (IT) occupations, which now cover a so far neglected segment of the labour market. It can be assumed that these occupations, among others, will most definitely exclude substantial numbers of young people who fail to reach a certain educational standard. Companies nowadays expect a broad general education alongside computer literacy, and they want to build a specific occupational knowledge on this. According to an analysis carried out by the Federal Institute of Vocational Training, only 50% of companies actually want to hire graduates from the tertiary sector. This proves that the new occupations are being taken on by industry. Nevertheless, this could lead to an even more socially segmented training market. At the same time, school-based forms of work preparation seem to gain importance as a 'catch-all' for unsuccessful school leavers. It may thus be argued that the 'crisis' of the Dual System appears first and foremost to be conditioned by volatile labour markets and other external factors, rather than by qualitative problems or structural inflexibility of the system itself.

Apprenticeships and modularisation

Beyond all of these quantitative considerations, skepticism in the German VET debate has for some time become centred around the question of whether modular principles are generally compatible with the organisational features of the Dual System as well as with the didactical pattern and pedagogical understanding underlying training arrangements (Deissinger 1998; Deissinger 1999). The question is: how should Germany's vocational training system react with respect to the problem of integrating the slow learners or those belonging to the 'problem' groups? At the same time, dual training is expected to be brought up to date in terms of new training contents and training methods to ensure quality standards and the matching of training and work. From an institutional and didactical point of view, three ways are conceivable:

- fragmentation
- sequentiation/differentiation
- stage training courses/supplementation.

Fragmentation concept

The first approach could be to dissolve occupational patterns by establishing a modular system with variable access opportunities and flexible levels of qualification standards. England and Scotland, with their respective certification systems, have established a competence approach linked to modularisable qualifications defined by employers and assessed in the workplace (Deissinger 1999; Hodgson and Spours 1997; Pilz 1999; Steedman 1998). This system has been designed to substitute traditional qualifications that were criticised as obsolete and also to bring the spheres of general and vocational education together. As it has provoked criticism ranging from the general reproach of quality regression to the contention that these qualifications work according to behaviouristic principles (Hyland 1995), there is serious doubt whether a modular approach of this radical kind could pay tribute to the quality standards underlying the Dual System mentioned above or form a serious alternative to traditional apprenticeship (Deissinger 1998, pp 205 ff).

Sequentiation/differentiation concept

On the other hand, implanting modules within courses of training as didactical elements need not necessarily result in the dumping of occupational skill formation (Euler 1998, pp 96 ff; Kloas 1997). It will be crucial, however, that even modularised profiles become accepted in the labour market in the long run. This clearly requires combining the notion of quality control with a strong will to keep the number of occupations comparatively low. The advantageous effects of such a 'mild' strategy could be that the modernisation of training content would become easier by inserting revised modules into schemes, and that retraining could be more immediately linked to initial VET in the Dual System. This option would in the first place contribute to adapting the training system to technological developments, but could also help companies to train young people according to firm-specific needs. Therefore, it would pay tribute to specialisation and modernisation requirements. The IT schemes are a recent example of this approach to modularisation; here, the training contract can be specified in terms of an optional module in year three of the training course. This comes close to the so-called 'Satellite Model' developed by the German Chamber Association. It is the view of the chambers that there ought to be 'three freedoms' for companies when settling the training contract: (i) reducing the training length to a minimum of two years; (ii) inserting both optional and additional modules into the training process which remain based on fundamental skills for everybody learning this occupation; (iii) and bringing more flexibility to examination procedures (Deutscher Industrie - und Handelstag 1999). The problem is that these 'freedoms' imply that training in a specific occupation could become 'individualised' to an extent that rates the needs of companies higher than the 'vocational' quality of the training scheme.

Stage training courses/supplementation concept

A third way to bring more flexibility into the Dual System could be to increase the number of formal levels at which vocational qualifications are obtained. Providing more flexibility by paying more attention to the educational achievements of young people seems, at least at first glance, more agreeable among interest groups involved in German vocational training policy than a plain modular approach. One future reform option could therefore be to supplement the current uniform training schemes by offering an extra set of formal qualifications for the more potent learners (Pahl and Rach 1999). At the other end of the qualification ladder, differentiation could lead to special training courses for weaker learners, including new stage-structured training schemes. The social partners are currently debating the topic of shorter training times. By stressing the standards of training and the quality aspect, the German trade unions and the crafts combine in their efforts to preserve the traditional occupation-based pattern within the Dual System. Whereas trade unions have always feared that low-standard training would automatically lead to new wage structures (Kuda 1996, p 18), the crafts expect that the occupational principle could be at peril if, for example, the 'small journeyman certificate' was introduced (Beckers 1988). In the industrial sector, however, two-year training courses would be welcome although demand here is not universal (Zedler 1996). The General Secretary of the Federal Institute of Vocational Training has made it clear that differentiation should not mean giving up the totality of a skilled occupation (Pütz 1997). Also, one of the most recent statements of the Federal Minister of Education and Research underlines that less exacting occupations ought to require three-year courses and would therefore not establish a 'second class' Dual System.

There is neither a clear nor a final perspective for the features of new training schemes - be it for the sake of weaker learners or employers' flexibility demands. It will certainly depend on the extent to which modular principles penetrate into the German system. The three options indicate that modularisation can adopt different forms. Therefore it seems feasible to alter vocational courses along the lines of a differentiation model (option 2). However, while optional supplementary modules linked to different stages of training would also be compatible with the occupational principle (option 3), a fragmentation concept (option 1) use in the British systems would certainly break a long-standing tradition of VET (Deissinger 1999, pp 199 ff; Pilz 1999). Hence any reform option will have to be measured against its potential effects on the principle of occupational or vocational orientation and its social function (Adler and Lennartz 2000; Kutscha 1998, p 259), as it must be harmonised with the traditional notion of quality control and marketability of qualifications (Berger et al 2000). More clearly, however, any reform will also have to prove whether it will cause employers to offer training in any stratum of the training system.

References

Adler T and Lennartz D (2000) Flexibilisierung von Ausbildungsordnungen. Aktuelle ordnungspolitische Konzepte zur Nutzung von Modularisierungsansätzen. Berufsbildung in Wissenschaft und Praxis, vol 29, no 3, pp 13-17.

Beck U, Brater M and Daheim H (1980) Soziologie der Arbeit und der Berufe. Grundlagen, Problemfelder, Forschungsergebnisse, Rowohlt, Reinbek.

Beckers H (1998) Der Kleine Gesellenbrief - Was steckt dahinter? Wirtschaft und Berufserziehung, vol 50, no 6, pp 16-18.

Benner H (1977) Der Ausbildungsberuf als berufspädagogisches und bildungsökonomisches Problem, Schroedel, Hannover.

Benner H (1984) Zum Problem der Entwicklung betrieblicher Ausbildungsordnungen und ihrer Abstimmung mit schulischen Rahmenlehrplänen. In W Georg (ed) Schule und Berufsausbildung. Bielefeld: W Bertelsmann, pp 175-187.

Berger K, Brandes H and Walden G (2000) Chancen der dualen Berufsausbildung. In Berufliche Entwicklungsperspektiven aus betrieblicher Sicht und Berufserwartungen von Jugendlichen. Bielefeld: W Bertelsmann.

Brater M (1981) Thesen zur Berufskonstruktion. Berufsbildung in Wissenschaft und Praxis, vol 10, no 5, pp 32-36.

Brown A and Evans K (1994) Changing the training culture: lessons from Anglo-German comparisons of vocational education and training. British Journal of Education and Work, vol 7, pp 5-15.

Bundesministerium für Bildung und Forschung (2000). Berufsbildungsbericht 2000, BMBF, Bonn.

Bundesministerium für Bildung und Forschung (1999) Berufsbildungsbericht 1999, BMBF, Bonn.

Deissinger T (1994) The evolution of the modern vocational training systems in England and Germany: a comparative view. Journal of Comparative Education, vol 24, pp 17-36.

Deissinger T (1996) Germany's Vocational Training Act: its function as an instrument of quality control within a tradition-based vocational training system. Oxford Review of Education, vol 22, pp 317-336.

Deissinger T (1998) Beruflichkeit als 'organisierendes Prinzip' der deutschen Berufsausbildung, Eusl, Markt Schwaben.

Deissinger T (1999) Beruflichkeit als Zusammenhang. Ein Vergleich mit England. In K Harney and H E Tenorth (eds) Beruf und Berufsbildung. Situation, Reformperspektiven, Gestaltungsmöglichkeiten (40, Beiheft zur Zeitschrift für Pädagogik). Weinheim: Beltz, pp 189-207.

Deutscher Industrie-und Handelstag (ed) (1999) Leitlinien Ausbildungsreform. Wege zu einer modernen Beruflichkeit, DIHT, Bonn.

Euler D (1998) Modernisierung des dualen Systems - Problembereiche, Reformvorschläge, Konsens- und Dissenslinien, Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung, Bonn.

Euler D (1999) Lernortkooperation in der beruflichen Bildung - Stand und Perspektiven aus Sicht wirtschaftspädagogischer Forschung. In K Harney and H E Tenorth (eds) Beruf und Berufsbildung. Situation, Reformperspektiven, Gestaltungsmöglichkeiten (40, Beiheft zur Zeitschrift für Pädagogik). Weinheim: Beltz, pp 249-272.

Greinert W D (1994) The German system of vocational training. History, Organization, Prospects. Baden-Baden: Nomos.

Harney K (1985) Der Beruf als Umwelt des Betriebs. Vergleichende, historische und systematische Aspekte einer Differenz. In Verbände der Lehrer an beruflichen Schulen (eds) Die Relevanz neuer Technologien für die Berufsausbildung. In Krefeld: Nordrhein-Westfalen, pp 118-130.

Hodgson A and Spours K (1997) Modularization and the 14-19 Qualifications System. In A Hodgson and K Spours (eds) Dearing and beyond. Qualifications, frameworks and systems. London: Kogan Page, pp 105-120.

Hyland T (1995) Behaviourism and the meaning of competence. In P Hodkinson and M Issitt (eds) The challenge of competence: professionalism through vocational education and training. London: Cassell, pp 44-57.

Kloas P W (1997) Modularisierung in der beruflichen Bildung. Modebegriff, Streitthema oder konstruktiver Ansatz zur Lösung von Zukunftsproblemen? Bielefeld: W Bertelsmann.

Konietzka D and Lempert W (1998) Mythos und Realität der Krise der beruflichen Bildung. Der Stellenwert der Berufsausbildung in den Lebensverläufen verschiedener Geburtskohorten, Zeitschrift für Berufs- und Wirtschaftspädagogik, vol 94, pp 321-339.

Kuda E (1996) Steigerung der Attraktivität dualer Ausbildung durch, praxisorientierte Kurzausbildungsgänge?, Berufsbildung in Wissenschaft und Praxis, vol 25, no 1, pp 16-21.

Kutscha G (1992) Entberuflichung und Neue Beruflichkeit - Thesen und Aspekte zur Modernisierung der Berufsbildung und ihrer Theorie. Zeitschrift für Berufs- und Wirtschaftspädagogik, vol 88, pp 535-548.

Kutscha G (1998) Regulierte Pluralität - Entwicklungspfade aus der Sackgasse des Dualen Systems. Die berufsbildende Schule, vol 50, pp 256-260.

Maurice M (1993). The link between the firm and the educational system in vocational training: the cases of France, Germany, and Japan. In University of Laval and International Labour Office, Department of Industrial Relations (eds) Vocational training: international perspectives. Quebec: Laval, pp 43-69.

Muth W (1985) Die historische Entwicklung der Lehrabschlußprüfungen bei den Industrie- und Handelskammern. Wirtschaft und Berufserziehung, vol 37, pp 328-336.

Pahl J-P and Rach G (1999) Zusatzqualifikationen - Wegbereiter zur Dynamisierung der Berufsbildung. Die berufsbildende Schule, vol 51, pp 356-361.

Pilz M (1999) Modulare Strukturen in der beruflichen Bildung - eine Alternative für Deutschland? Eine explorative Studie am Beispiel des schottischen Modulsystems, Eusl, Markt Schwaben.

Pütz H (1997) Modularisierung - das falsche Thema, ungenügend bearbeitet, zur ungeeigneten Zeit', in Modularisierung in der beruflichen Bildung. In P W Kloas (ed) Modebegriff, Streitthema oder konstruktiver Ansatz zur Lösung von Zukunftsproblemen? Bielefeld: W Bertelsmann, pp 63-75.

Raggatt P (1988) Quality control in the Dual System of West Germany. Oxford Review of Education, vol 14, pp 163-186.

Rosenkranz G (2000). Green Card oder Red Card. Der Spiegel, no 15 (4 April), p 78.

Ryan P (2001). Apprenticeship in Britain: tradition and innovation. In T Deissinger (ed) Berufliche Bildung als Orientierungs- und Anpassungsproblem. Analysen zur

Berufsbildungsreform und zur Vorbildfunktion internationaler berufsbildungspolitischer Entwicklungsperspektiven. Baden-Baden: Nomos.

Schütte F (1992) Berufserziehung zwischen Revolution und Nationalsozialismus. Ein Beitrag zur Bildungs-und Sozialgeschichte der Weimarer Republik, Deutscher Studien Verlag, Weinheim.

Steedman H (1998) A decade of skill formation in Britain and Germany. Journal of Education and Work, vol 11, no 1, pp 77-94.

Timmermann D (1994) Die Rückentwicklung der Arbeitsmarktchancen und -risiken von Fachkräften: Rückblick und Ausblick'. In S Liesering, K Schober and M Tessaring (eds) Die Zukunft der dualen Berufsausbildung. Nürnberg: Bundesanstalt für Arbeit, pp 81-109.

Zabeck J (1975) Die Bedeutung des Selbstverwaltungsprinzips für die Effizienz der betrieblichen Ausbildung. Untersuchung im Auftrage des Ministers für Wirtschaft, Mittelstand und Verkehr des Landes Nordrhein-Westfalen, Mannheim.

Zabeck J (1991) Ethische Dimensionen der Wirtschaftserziehung. Zeitschrift für Berufs-und Wirtschaftspädagogik, vol 87, pp 533-562.

Zedler R (1996) Differenzierung innerhalb der Berufsausbildung: Förderung von Lernschwachen. In W Schlaffke and R Weiss (eds) Das duale System der Berufsausbildung - Leistung, Qualität und Reformbedarf. Köln: Deutscher Instituts-Verlag, pp 171-190.

Contact details

Thomas Deissinger
Email: Thomas.Deissinger@uni-konstanz.de

Learning for transfer – a theory of situational learning

Cathy Down

RMIT University, Victoria

The need for the transfer of competence across workplaces and work communities is a fundamental platform which reverberates through the public policy and rhetoric of vocational education and learning. What is not clear is how this goal is to be achieved. Nor is its inclusion in our practice as educators and researchers either specified or overtly encouraged. Can it therefore be assumed that the transfer of competence is an innate ability? Or do we need to find ways in which to enhance the ability of our workforce to effectively transfer their competence in response to workplace change?

This paper reports on the findings to date from a PhD research project into the transfer of competence across workplace contexts. It establishes a framework for learning which is student centred and which integrates the concepts of activity theory (Engeström 1999), expansive learning (Bateson 1972), communities of practice (Billett 1998) and multiple intelligences (Gardner 1999). It looks at the shift in teaching practice which is essential if learners are to be actively empowered to learn in ways which reduce their conditioned dependency on formal learning tools and ritualised events and develop their capacity for lifelong experiential and investigative learning.

This paper is a tangible outcome of a research process which started around the concept of the transfer of competence across different working situations. Consideration of transfer gives rise to a host of questions: What is it? How does it occur? Why are some people apparently better at it than others? What motivates people to transfer what they know and can do to new situations? What inhibits the process? What teaching strategies encourage the development of transfer skills? What strategies inhibit transfer? What are the key capabilities needed to initiate and sustain transfer?

The transfer of skills and knowledge across contexts is a fundamental part of the rhetoric of teaching and educational provision. It is a mantra which repeats itself within our educational policy and resource allocations. What, if anything, is the basis for frequent assertions within policy and literature that if our workforce learns ' ... ', then they will become flexible workers able to adapt to workplace changes concomitant with rapid technological development?

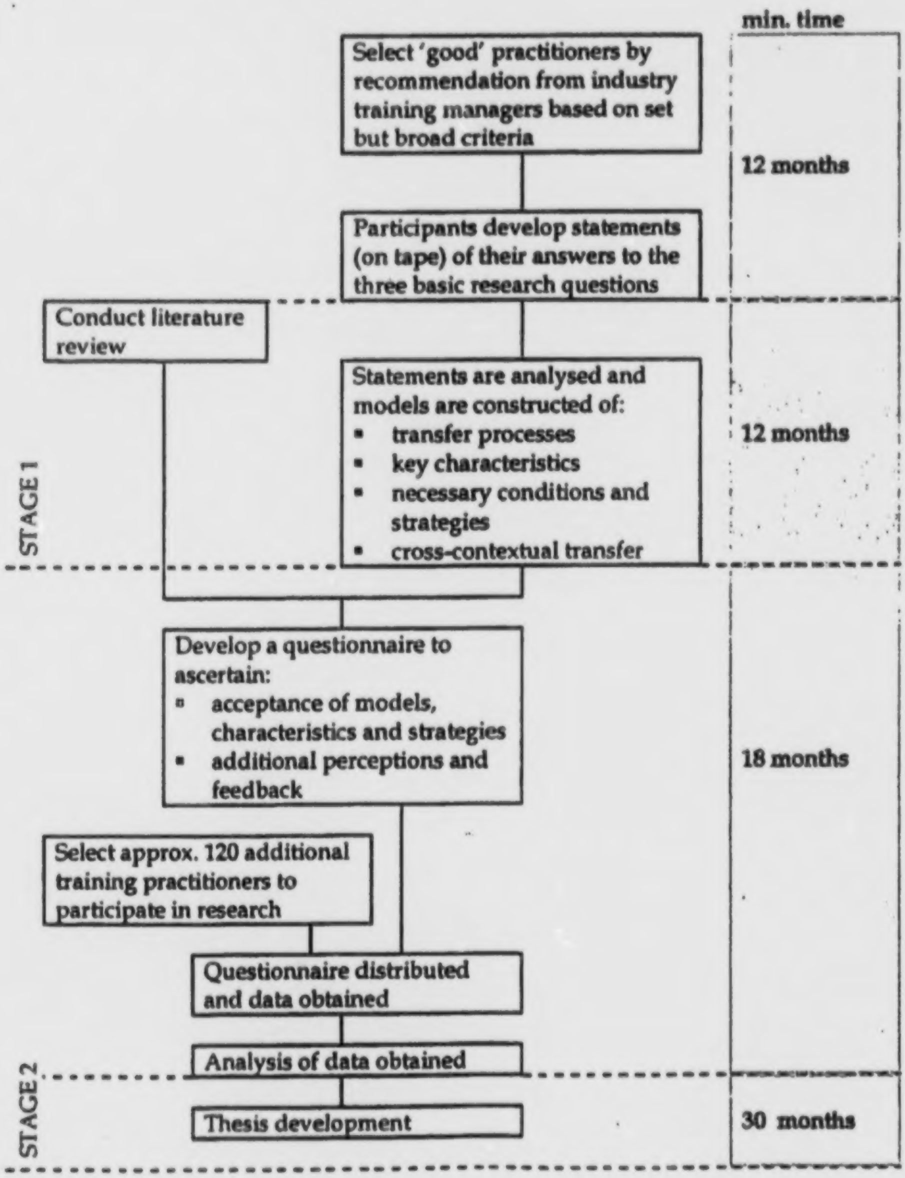
Methodology

The aim of my ongoing research is to collect the perceptions of those involved in vocational education and training, especially those involved in work-based learning and situated learning. In an earlier presentation (Down 1999), the raw data collected from 14 in-depth interviews with practitioners was discussed in general terms. Since then, an attempt to systematically analyse this data, using a matrix developed by

Engeström (1999, p 6), has been made. Arising from this and from an ongoing literature search, a model for describing learning for transfer has been developed.

This model will be used as the basis of an electronic questionnaire which will then be forwarded to at least 120 practitioners for feedback and validation. The responses will provide the data on which an enhanced model will be developed. Figure 1 provides a diagrammatic view of the research design.

Figure 1: Research design


min. time
Select 'good' practitioners by recommendation from industry training managers based on set but broad criteria
12 months
Participants develop statements (on tape) of their answers to the three basic research questions
Conduct literature review
Statements are analysed and models are constructed of:
▪ transfer processes
▪ key characteristics
▪ necessary conditions and strategies
▪ cross-contextual transfer
12 months
STAGE 1
Develop a questionnaire to ascertain:
▫ acceptance of models, characteristics and strategies
▪ additional perceptions and feedback
18 months
Select approx. 120 additional training practitioners to participate in research
Questionnaire distributed and data obtained
Analysis of data obtained
STAGE 2
Thesis development
30 months

Analysis of data

The conceptual framework within which the stage 1 data has been analysed is based on a matrix for the analysis of expansive learning developed by Engeström (1999, p 6). This matrix is derived from a consideration of learning within the framework of activity theory. Engeström argues that standard theories of learning are based on the proposition that the knowledge or skill to be acquired is itself stable and reasonably well-defined and that there is a competent teacher who knows what is to be learnt. In contrast, learning in the workplace is often concerned with something which is not stable, nor even defined or understood ahead of time. This is the learning involved in personal and organisational transformation and thus, it may be argued, is an essential aspect of learning for transfer.

Expansive learning may be seen to develop from Bateson's (1972) theory of learning. Bateson distinguished between three levels of learning. These are outlined in the following table:

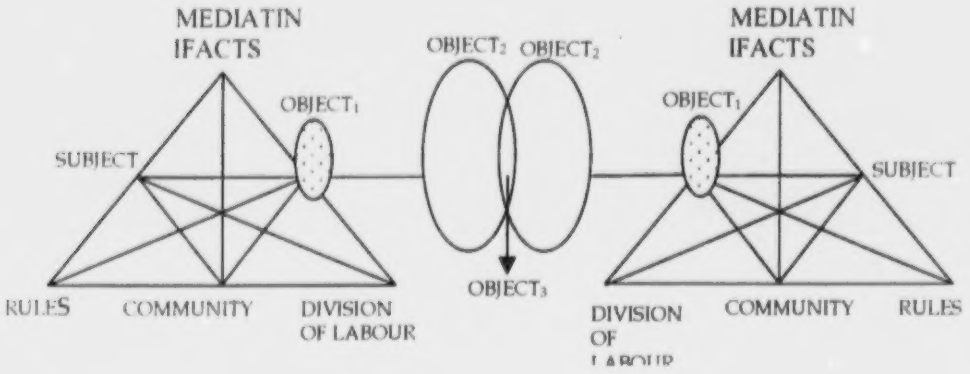
Table 1: Bateson's levels of learning

	Description	Example
level I	conditioning through the acquisition of responses deemed correct within a given context	learning the correct answers and behaviours in a classroom
level II	acquisition of the deep-seated rules and patterns of behaviour characteristic to the context itself	learning the 'hidden curriculum' of what it means to be a student
level III	radical questioning of the sense and meaning of the context and the construction of a wider alternative context	learning leading to change in organisational practices

Expansive learning develops from level III learning and actively and collectively develops new patterns of activity. The matrix developed for the analysis of expansive learning combines the five principles of activity system thinking with four fundamental questions about learning.

The first principle of activity theory is that 'a collective, artifact-mediated and object-oriented activity system ... is taken as the prime unit of analysis' (Engeström 1999, p 4). This is illustrated in Figure 2.

Figure 2: Minimal model for activity theory (Engeström 1999)


MEDIATIN
IFACTS
OBJECT$_1$
SUBJECT
RULES
COMMUNITY
DIVISION OF LABOUR
OBJECT$_2$
OBJECT$_2$
OBJECT$_3$
MEDIATIN
IFACTS
OBJECT$_1$
SUBJECT
DIVISION OF
COMMUNITY
RULES

This means that the analysis of a system of activity, whether this is a group or individual activity, needs to be analysed within the context of the activity according to an identification of the mediating artefacts, the community of practice in which the group or individual is embedded, the applicable rules and the division of labour involved - as all these will impact on the outcome of the activity.

The second principle is the multi-voicedness of activity systems, which are necessarily a community of multiple-points of view, traditions and interests. The third principle is historicity as activity systems take shape and get transformed over a period of time. Hence, their problems and potentials can only be understood against their own history. The fourth principle is concerned with the central role of contradictions as sources of change and development, whilst the fifth principle asserts that activity systems undergo expansive transformations when the object and motive of the activity 'are reconceptualised to embrace a radically wider horizon of possibilities than in the previous mode of the activity' (Engeström 1999, p 5).

Figure 3 shows the matrix which was used to analyse the stage 1 research data.

Figure 3: Matrix for the analysis of expansive learning (Engeström 1999)

	Activity system as unit of analysis	Multi-voicedness	Historicity	Contradictions	Expansive cycles
Who is learning?					
Why do they learn?					
What do they learn?					
How do they learn?					

Outcomes of the analysis

Whilst time-consuming and difficult, the analysis enabled the recognition of the paradoxes and unresolved contradictions which were apparent in all the interviews. It also enabled the identification of emerging views, as the discipline of working through the concept of transfer and its manifestations gave rise to new insights and understandings.

One of the most intriguing things shown by the analysis is that, for many of the participants, the multi-voicedness was internal as they slipped between themselves as learners and themselves as facilitators of learning. Thus two clear systems could be identified depending on the role the participant was reflecting on, and these systems carried their own historicity and contradictions.

As a result of this, it is intended to re-interview the participants in an attempt to determine whether such factors will give rise to expansive learning about their perceptions of learning for transfer.

A model of learning for transfer

The exercise of analysis through the expansive learning framework allowed me to give form to a model of learning which I believe starts to pull together a number of approaches to learning which are linked within the literature to learning for transfer.

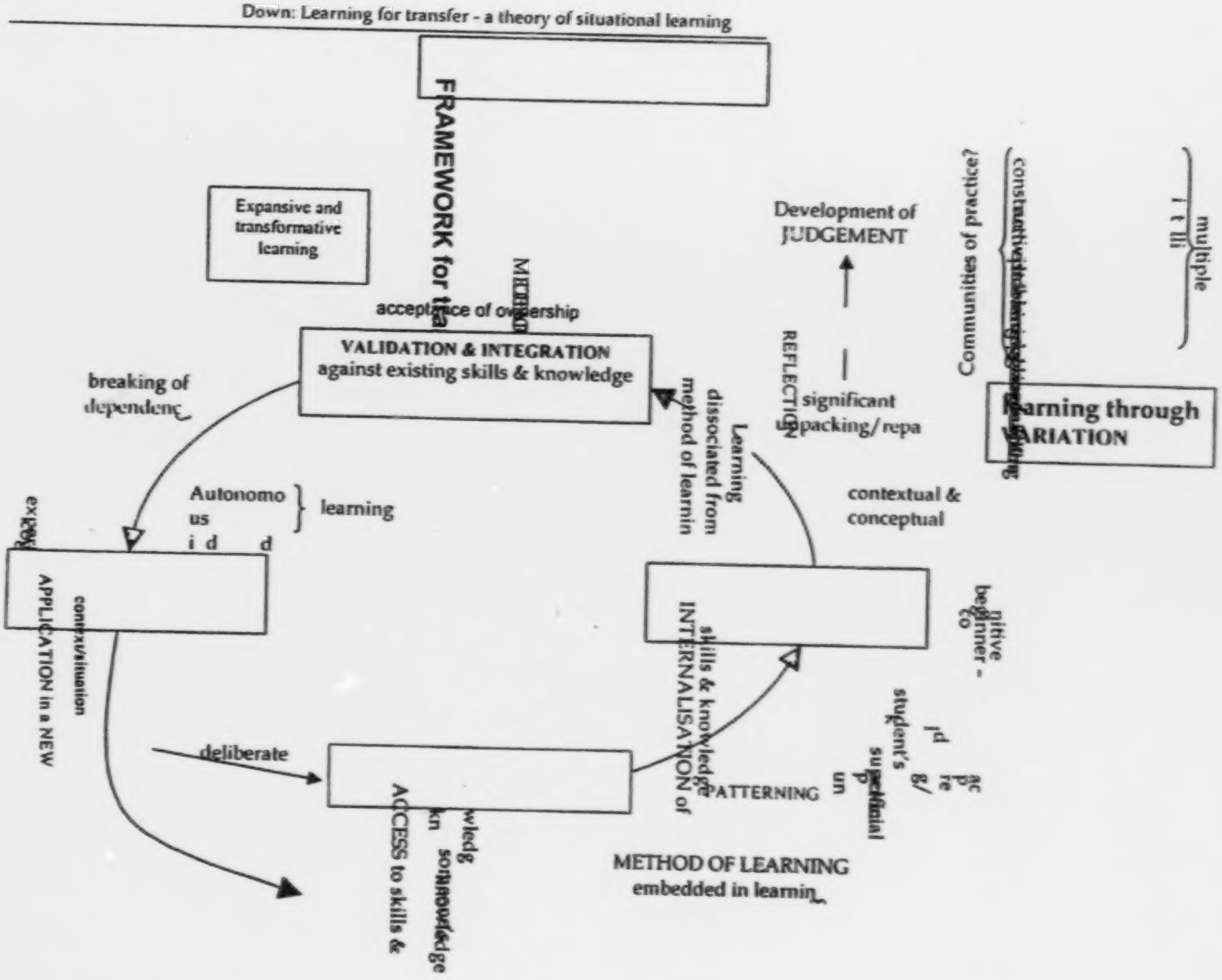
The diagram (shown in two possible configurations) on the following page shows the bare bones of what my thesis is at present - it will no doubt change as I continue my research. The diagram attempts to represent a cross-section through a learning spiral. The argument which underpins this diagram is that, if this is a reasonable depiction of how learning might be considered, then we need to shift our focus away from the provision of information to the facilitation of the learner's ability to unpack and repack, analyse and synthesise, or deconstruct and reconstruct his/her current learnings against existing understandings within multiple frameworks, in a different configuration.

This deconstruction and reconstruction has multiple starting points and results in different configurations of learning. It is not putting the puzzle back again into a known form; it is the creation of new and deeper understandings.

Recent work by Marton and Booth (1997) and Bowden and Marton (1998) presents the theory that it is through the experience of difference, rather than the recognition of similarity, that we learn. Certainly the third step in my learning loop represents learning as a result of the perception and experience of difference. The questioning of this perceived or experienced difference generates 'puzzlement' and transforms it from fuzzy confusion to tangible questions which lead to interest, motivation to learn and the exercise of imagination. It results in the generation and consideration of innovative answers and alternatives.

The rationale for this is that the recognition of similarity (or learning through patterning) limits the depth of the learning as it limits learners' exposure to risk and prevents them from having to leave their learning comfort zone. Much of our conditioned learning during compulsory schooling is characterised by an emphasis on patterning and linear logic. These are both learning tools can could be said to minimise the risk of getting the 'wrong' answer and form the basis for the development of social conformity and adherence to social mores.

In contrast, our informal learning is characterised by a 'trial and error' approach, in which we accept that we will probably make mistakes but that we will learn through these. This is learning in the context of variation and is often characterised by lateral and innovative thinking. Learning through variation necessarily involves the learner in the double loop of problem solving and reflective thinking.


Down: Learning for transfer - a theory of situational learning
FRAMEWORK for tra
Expansive and transformative learning
acceptance of ownership
VALIDATION & INTEGRATION against existing skills & knowledge
breaking of dependenc
Autonomo us i d d learning
APPLICATION in a NEW context/situation
deliberate
ACCESS to skills & knowledge
INTERNALISATION of skills & knowledge
PATTERNING
METHOD OF LEARNING embedded in learnin
Learning dissociated from method of learnin
contextual & conceptual
beginner - co nitive
student's superficial
REFLECTION
significant unpacking/repa
Development of JUDGEMENT
Communities of practice?
Learning through VARIATION
multiple i t lli

This also means that what is learned is disembedded (partially or completely) from the method of learning. By contrast, learning through patterning results in learning in which the method of learning and the learning are deeply embedded and not dissociated.

It is also important to recognise that our learning is underpinned by unconscious modifications which result from an individual learner's experience and orientation, the language structure and medium in which the learning is expressed and the contexts and environments (physical, social, intellectual and psychological) in which it occurs.

Learning can be aborted at any point along the loop. My current research suggests that failure to continue learning occurs when it becomes too hard or the risk is too great relative to the learner's motivation to learn. Thus, within the learning process, the learner must have access to or develop strategies to store and organise partial learnings.

The last step in a learning loop is the final breaking of the learner's dependency on the method or environment of learning and signals that the learner is capable of flexible, autonomous and independent transfer of his/her acquired competence. This involves 'letting go' of his/her reliance on the learning props which have been used to initiate, motivate and support learning and includes undue dependence on:

- external motivators
- teachers and mentors
- co-learners and colleagues
- methods and strategies of learning
- 'prods and pokes' which detract from learning independence and autonomy.

The concept of spontaneous transfer[1] (which is implied in the fourth stage of my diagram) is a contested one. A number of researchers, mainly cognitive psychologists, argue that it is a myth, maintaining that there is no empirical evidence that spontaneous transfer does occur (Misko 1998).

I cannot agree with this as my experience (and those of students, colleagues and research participants) is rich with incidents where quite autonomous and independent transfer of competence has occurred. My formative theory on this is that spontaneous transfer arises from an internal sense of 'puzzlement' combined with the need, imagination and initiative to make meaning out of diversity, paradox and multiplicity. This probably entails reflection which reflexively crosses the boundaries between linear and lateral logic; intuition and nous; 'big-picture' and 'fine-detail' thinking; and reasoning both 'within' and 'without' the square.

This probably gives rise to the question of whether it is possible to 'teach' or for something to be 'taught'. Whilst I still, from habit I suspect, use those terms, I am becoming increasingly convinced that you cannot teach anyone anything (or is that a double negative?), nor can you motivate someone to learn. The best that teachers can do is to facilitate an active, inclusive, interesting and challenging environment (physical, social, intellectual and psychological/emotional) in which the learner can learn and which provides sufficient exposure to variation to cause the learner to question his/her experience, feelings and thoughts.

Conclusions

If this model does help to explain the complexities of learning for transfer, then it implies a radical shift from much of the teaching and learning which currently occurs and is promoted within vocational education and training (VET).

In order to enable educational institutions and enterprises to enthusiastically embrace a VET approach which ensures that their students become independent of them, a radical change from the current government- and training authority-imposed regimes of accountability and audits of activity is required. It requires the courage and commitment to shift current thinking from a product-oriented model based on manufacturing processes to the recognition that teaching is a service activity and one which is only fruitful when teachers and learners work together towards a common goal; a truly Herculean task.

Moreover, cleaning the Augean Stables is child's play compared with the challenge of converting a system, characterised by almost total commitment to learning through patterning and dependency, to the development of transferable learning. However, it is imperative in order to ensure that the Australian workforce can rapidly adapt to technological and work practice change.

Note

1. Basically, spontaneous transfer involves the subject transferring what has been learned in one context to another without prompting towards a recognition of the essential similarity of the two contexts.

References

Bateson G (1972). Steps to the ecology of mind. New York: Ballantine Books.

Billett S (1998) Transfer and social practice. Australian and New Zealand Journal of Vocational Education Research, vol 6, no 1, pp 1-25.

Bowden J and Marton F (1998) The university of learning: beyond quality and competence. London: Kogan Page.

Down C M (1999) Working theories in practice: perceptions on the transfer of competence across workplace contexts (DEETYA E1). Seventh Annual International Conference on Post-compulsory Education and Training, Gold Coast, Griffith University.

Engeström Y (1999) Expansive learning at work: toward an activity-theoretical reconceptualization. Seventh Annual International Conference on Post-Compulsory Education and Training, Gold Coast, Centre for Learning and Work Research, Griffith University.

Gardner H (1999) Intelligence reframed: multiple intelligences for the 21st century. New York: Basic Books.

Marton F and Booth S (1997) Learning and awareness. The educational psychology series. New Jersey: Lawrence Erlbaum Associates, pp 168-171.

Misko J (1998) Do skills transfer? An empirical study. VET research: influencing policy and practice. Sydney. Australian Vocational Education and Training Research Association.

Contact details

Cathy Down
Projects Director (Educational Development)
Office of the Pro-Vice Chancellor (Teaching and Learning)
Building 15, Level 4, Room 13
City Campus
RMIT University
Melbourne Victoria 3001
Ph: +61 3 9925 3965
Fax: +61 3 9925 3963
Email: cathy.down@rmit.edu.au

Implementation of training packages at RMIT

Cathy Down and Jane Stewart

RMIT University

RMIT University has adopted an approach to Training Packages which equally values the learning journey of its students with the training outcomes. This paper will look at the essential educational design issues including underpinning knowledge, building generic capabilities, graded assessment and using student-centred approaches which are responsive to students needs and aspirations. The professional development needed to support the change in teaching approach will also be discussed. In addition, an overview of the structural and administrative processes changes which have been implemented to ensure a quality approach to Training Packages will be presented.

It has been noted in a range of forums that the flexible capacity of Training Package qualifications has liberated the learning design process so that it is more capable of

- reflecting the needs of particular student cohorts and markets
- customising qualifications to a range of industry and enterprise circumstances
- translating the political and industrial contexts of Training Package development to delivery, planning outcomes and documentation of assessments
- providing multiple interpretations of course structures within the same qualification
- amplifying the underpinning knowledge and generic capabilities
- providing multiple reporting formats for a range of pathway outcomes to meet organisational and student requirements, eg the need to be able to provide competency statements for employment purposes and graded assessments for articulation purposes.

RMIT's response to the introduction of Training Packages as the specification of endorsed vocational education and training (VET) outcomes and qualifications has been based on an analysis of:

- the form and function of training packages and the changes in practice that are indicated;
- the professional needs of RMIT teaching and support staff to implement this change; and
- our obligation to our students to provide them with an educationally sound and vocationally relevant learning program

The approach to the implementation of Training Packages which RMIT University has adopted is one which places equal value on both the learning journey of the students and their vocational outcomes. It recognises that whilst Training Packages specify the outcomes to be achieved and the rules for awarding national qualifications, it is at the RTO level that the learning curriculum must be developed. This gives the partners in the training process roles which are commensurate with their particular expertise. Industry representatives define the competencies which particular industries need and VET teachers and trainers design and develop learning paths through which industry needs are met.

As a dual sector tertiary provider, RMIT has developed a Teaching and Learning (T&L) strategy to ensure that the learning needs of its students are met. This strategy places emphasis on both the learning journey and the learning outcomes. The authors of this paper believe the process put in place to ensure quality teaching and learning in Training Package programs is not only consistent with the RMIT T&L strategy but also represents good practice in the implementation of Training Packages. Reflecting on the authors' experience, this paper provides a very short case study of RMIT practice.

Implementation plan

The RMIT process is built around the development of an Implementation Plan. This process enables the program team to design the learning paths for particular groups of students and to ensure that the appropriate learning and administrative support mechanisms are in place before enrolment forms are issued and learning begins. This means that there is, necessarily, some lead-in time between the release of a Training Package at the state level and the commencement of delivery. This runs counter to bureaucratic demands for immediacy of response. However, faster and better are not necessarily synonymous and we believe that our leading edge will come from the quality of teaching and learning at RMIT. Whilst being first to offer a program may give some market advantage, it is satisfied clients who will seek return business.

The design of learning pathways and programs requires a level of educational expertise which many of our staff do not possess. This is not surprising given the emphasis over the last 10+ years on the provision of nationally developed learning resource packages which have been used as pseudo-curriculum documents by the majority of VET practitioners. It has, therefore, been recognised that the implementation of Training Packages must be viewed as a process of staff development and capacity building as much as that of educational planning and design.

Thus the development of an Implementation Plan is a process through which program teams are supported by a mentor to:

- identify their educational aims (capacities and competencies) given the particular group of students they are preparing to work with
- understand the agency and affordances of both the RMIT and student learning environments which need to be utilised to achieve these ends

- identify Units of Competency (UoCs) to be undertaken and design a suitable learning pathway to achieve them

- develop overall learning and assessment strategies at the program level

- develop at the learning unit level:

    - an agreed pedagogical approach
    - learning and assessment strategies and tasks
    - learning and assessment matrices
    - a diagnostic instrument for case study assessment

- ensure that all appropriate educational, marketing and administrative planning has been undertaken and appropriate mechanisms are in place to support both the students and the learning programs.

Underpinning the Implementation Plan process is an approach to program design and development which is illustrated in Figure 1. Clearly the development of an Implementation Plan does not cover the whole of this process. Instead, at the point of implementation, the Implementation Plan transforms into the Program Log and is used to collect and collate all information about the program, its administration, student feedback, progressive improvements, etc. The Program Log and regular discussion with the program industry advisory committee provides a mechanism on which both continuous and quantum program improvement processes are based.

The entire process sits within the wider RMIT Educational Quality Assurance (EQA) and Program Renewal policies, processes and procedures which cover all programs (TAFE and higher education) within RMIT.

Understanding learning and Training Packages

> You cannot teach anyone anything. You have to let them discover it for themselves. (Gallileo 1659, cited by Cantrell 2000)

The UoCs have been written on the basis of industry input and are organised to reflect job functions. They are also based on an understanding of informal workplace learning rather than formal institutional learning. Learning in the workplace is necessarily holistic, as different job functions impact on each other and the workplace context provides inherent consolidation and cohesion which is not necessarily present within institutional learning.

At RMIT, we have recognised the need to unpack and repack UoCs into Learning Units (LUs). Such learning units may contain the formative learning for a number of UoCs to both avoid unnecessary duplication and to provide a learning pathway which recognises many of the complexities embedded within Training Packages. The LUs are then organised into an appropriate learning pathway and mapped onto the appropriate UoCs. This is illustrated by Figure 2.

The LUs are graded on the basis of the quality of the students learning, whereas UoCs are assessed against the endorsed performance criteria and recorded as either 'competent' or 'not yet competent'. The LUs within a qualification are also used to negotiate articulation pathways into higher education programs on the basis of the developed curriculum.

Whilst this approach has been agreed to by the Office of PETE, there are some outstanding problems within the National Centre for Vocational Education and Training (NCVER) audit requirements which we are addressing through the development of an initial assessment instrument for each LU. This will also provide us with diagnostic information about a student's current understanding and capacity for learning.

Designing the learning pathway

The use of learning units enables RMIT staff to design into their programs many of the problematic issues which are facing vocational education and training practitioners. In particular, they enable us to:

- adopt a holistic approach to learning within Training Package programs
- group UoCs in order to manage SCHs more effectively
- integrate the key competencies within our students' learning
- emphasise application of key skills over time
- enable reflection and consolidation to be built into our programs
- enable teachers to use active learning techniques to develop a student's capacity to learn from action
- allow for assessment which is based on a student's responses to contingent as well as routine situations
- address underpinning or embedded knowledge as 'knowledge in action' rather than an artificial division into theory and practice
- promote an approach to learning which starts with practice and builds understanding around it.

The three case studies at the conclusion of this paper show how some of these aims have been achieved.

Administering Training Packages

Administration systems facilitate reporting the requirements of a range of stakeholders such as

- reporting formal performance to government bodies (ie AVETMIS)
- reporting compliance to funding bodies
- monitoring reports based on learning pathways by organisational users
- providing learning completion and assessment outcome reports to students and employers.

At RMIT, these systems have been developed to be intelligent and to reflect the learning approaches documented within Implementation Plans.

Conventional administration systems reflect corporate imperatives to report performance against a set of standardised products designed for a relatively stable market. They respond to a controlled view of education that compartmentalises and disassociates administration from delivery. In the era of Training Packages, there is a revolution underway and an explosion of creativity in the design and structuring of qualifications and associated learning pathways. It is no longer appropriate nor productive to continue to marginalise and separate the institutional administration of learning from the business of learning.

The development of new administration systems at RMIT has required a 'whole-of-organisation' approach to bring a range of organisational intelligences together, such as computer functionality, database construction, systems design and course structure design. Cross-organisational forums that progress professional understandings of the constraints and contexts of administration and delivery are important as well as the development of common definitions of concepts such as competencies and understandings of computer functionality. The resulting systems are integrated, flexible, useable and student-centred. For example, at RMIT, in developing flexible learning pathways for a range of students, we have identified several ways of defining the learning pathway with varying sequences of learning units. These LUs group several UoCs and/or splinter other UoCs across several LUs.

Such LUs constitute the basis of enrolment at RMIT and the database we use is able to provide information of enrolment and completion at both the LU and the UoC level. On completion of a Training Package program, students will receive:

- a testament of the appropriate qualification
- a statement of UoCs achieved
- an academic statement with graded assessment results for each LU undertaken.

As a consequence, the administration system is complex and capable of recording and reporting against multiple data fields, such as

- student enrolment in learning packages and related units of competency
- registration of multiple interpretations of qualification structures
- information on the unit(s) of competency as well as the learning package, including partial UoCs, underpinning knowledge and assessment requirements
- completions against learning packages
- progress towards or completion of UoCs using recognised codes
- transcript of results listing learning packages, units of competencies, grades and competency
- nationally recognised credentials, listing competencies achieved.

Conclusion

Obviously, the RMIT process is still in its infancy. Implementation Plans for over 100 programs have been prepared to date and these are now being implemented. Ongoing revisions and improvements are being made as problems and issues arise and are addressed. A similar number of Implementation Plans are expected to be developed this year for implementation in 2002.

Whilst it is essential that the vocational education and training RMIT delivers within a Training Package program is educationally sound and reproduces the conditions for good learning, it is equally important that there is cohesion between the educational and administrative processes of the university.

Where proactive dialogue is constructed between the two operational areas (administration and delivery), a greater understanding of the challenges of implementing Training Packages is evidenced. The discrepancies between the ordering of learning, methods of delivery, content and the structure of national qualifications are complex. Cooperative approaches to implementing Training Packages should prove effective over the longer term, but up to now have generally been circumvented by the administrative imperative to log new qualifications on databases to enable forthcoming enrolments.

In order to ensure that there is more synergy between administration and delivery and to maximise the flexibility of Training Packages, it is essential that organisations create cross-organisation planning forums aimed at fostering a whole-of-organisation approach to the implementation of Training Packages. The move towards affecting quality recording and reporting to all stakeholders in the VET system is critically dependent upon opportunities for teachers to plan and create educationally sound qualification structures collaboratively with administrators who are designing systems based on sound educational frameworks.

Only through this synergy will we be able to ensure that the learning and assessment outcomes of Training Package qualifications

- are student centred
- are flexibly structured to support a variety of learner needs
- meet the assessment and qualification requirements of Training Packages
- are based on robust pedagogical understandings
- provide consistency of assessment
- are informed by and inform quality processes
- support and enhance professional practice
- provide for multiple reporting formats for a range of audiences and intentions.

References

Cantrell A (2001) Unpublished notes from a seminar on Learning to Learn, Royal Melbourne Institute of Technology, Victoria, 27 February.

Appendix 1 – Case studies

Case study 1

Mary and Josefa approached the task of implementing the CSH Training Packages with a number of reservations. The programs they coordinated were mainly directed towards adults returning to study and were at Certificate III and IV level. They saw their role predominantly as inducting their students into the context and culture of the industry, so that they could operate within the ethics, mores, attitudes and codes of practice which typify the social and community services of practice.

Thus, they felt that the apparent concentration within Training Packages on standards of practice would diminish the access of their students to the body of theory in which such ethics, attitudes etc were embedded. They were also being faced with other concomitant changes and pressures such as reduced funding, a greater proportion of sessional staff to full-time staff, introduction of courses at lower AQF levels, workplace learning etc.

However, they had the advantage of being mentored by one of the writers of part of the CSH package, as well as the RMIT infrastructure which recognised that the implementation of Training Packages involved a great deal of educational planning to identify learning paths, learning and assessment strategies, and associated processes. They had also been marginally involved in an OTFE toolbox project which had enabled them to start a learning journey to investigate and integrate different learning and assessment processes and strategies.

They thus began the process of unpacking the Training Package and repacking it in a way which would meet the needs of their different groups of students. This included coming to grips with the idea that learning strategies and approaches would be quite different for those without experience of the work context to those currently working within it. This was not an easy process as they, and their colleagues, had to question and reformulate many of their basic educational assumptions and to accept that teaching and learning would require far greater planning and flexibility than they had become accustomed to with national resource and curriculum provision.

The implementation plans which they prepared were therefore the focus of much stress, uncertainty, anger and challenge, as people came to grips with the change processes implicit in Training Packages, each of them undertaking, at differing rates, a learning journey with respect to the change.

Gradually their attitudes changed as Training Packages started to be viewed as opportunities rather than straightjackets. They realised that part of the process was to identify the UPK necessary if learners were to achieve the UoC and then to map out a learning path which enabled their students to access and integrate the appropriate knowledge within the context of skill development.

Suddenly, they were flying – seeing Training Packages as a vehicle for change. They started seeing workbased training as a much richer learning environment than a 'one style fits all' process of classroom delivery. They realised that Training Packages were a useful tool to facilitate the development of industry links and partnerships, and that practical placement was a vehicle for learning rather than simply for 'practising' what had been learned in the classroom, and repositioning assessment as an integral part of skill development and recognition rather than just the end of a training process. They have also moved to a view of assessment as the development of an evidence portfolio rather than a one-off test or demonstration of skill and a recognition that the achievement of the same outcome can be measured in a variety of ways. The introduction of Training Package programs delivered with a workbased focus has also led to greater employment of their students, most of whom are being offered jobs before they have completed their course.

Mary, Josefa and their colleagues have recently been awarded an NTEU Commendation from the Institutional Quality and Planning Unit in recognition of the quality of their educational planning and the excellence of their quality management.

Case study 2

One program team has developed its learning units in such a way as to enable an additional learning unit called 'Program Overview' to be included. This learning unit provides for fortnightly review sessions in which the students meet to reflect on their learning and to identify and consolidate the linkages between the other concurrent learning units they are undertaking.

This unit is intended to help the students develop the capacity for autonomous and self-directed learning. It is also expected that it will help the students understand the connectedness and workplace applications of their learning and to develop the necessary capabilities for dealing with contingencies and sharing understandings with others.

The same program team were able to use the learning unit structure to develop an integrated approach to communication skills which entailed students going out to industry enterprises to talk to staff and, from the information collected, write reports and develop presentations about issues of concern to these enterprises.

Case study 3

Almost all programs have UoCs relating to Occupational Health and Safety (OH&S). In most cases, these units are part of the core competencies and as such are delivered early in the program of learning. By constructing the learning units appropriately, our program teams are able to introduce OH&S concepts early in the learning program, yet refrain from signing off the UoC until the students have demonstrated that they can apply these concepts in subsequent units.

This approach has also been used with UoCs concerned with communication and interpersonal skills, group work, management skills and information technology.

Contact details

Cathy Down
Projects Director (Educational Development)

Office of the Pro-Vice Chancellor (Teaching and Learning)
Building 15, Level 4, Room 13
City Campus
RMIT University
Melbourne Victoria 3001
Ph: +61 3 9925 3965
Fax: +61 3 9925 3963
Email: cathy.down@rmit.edu.au

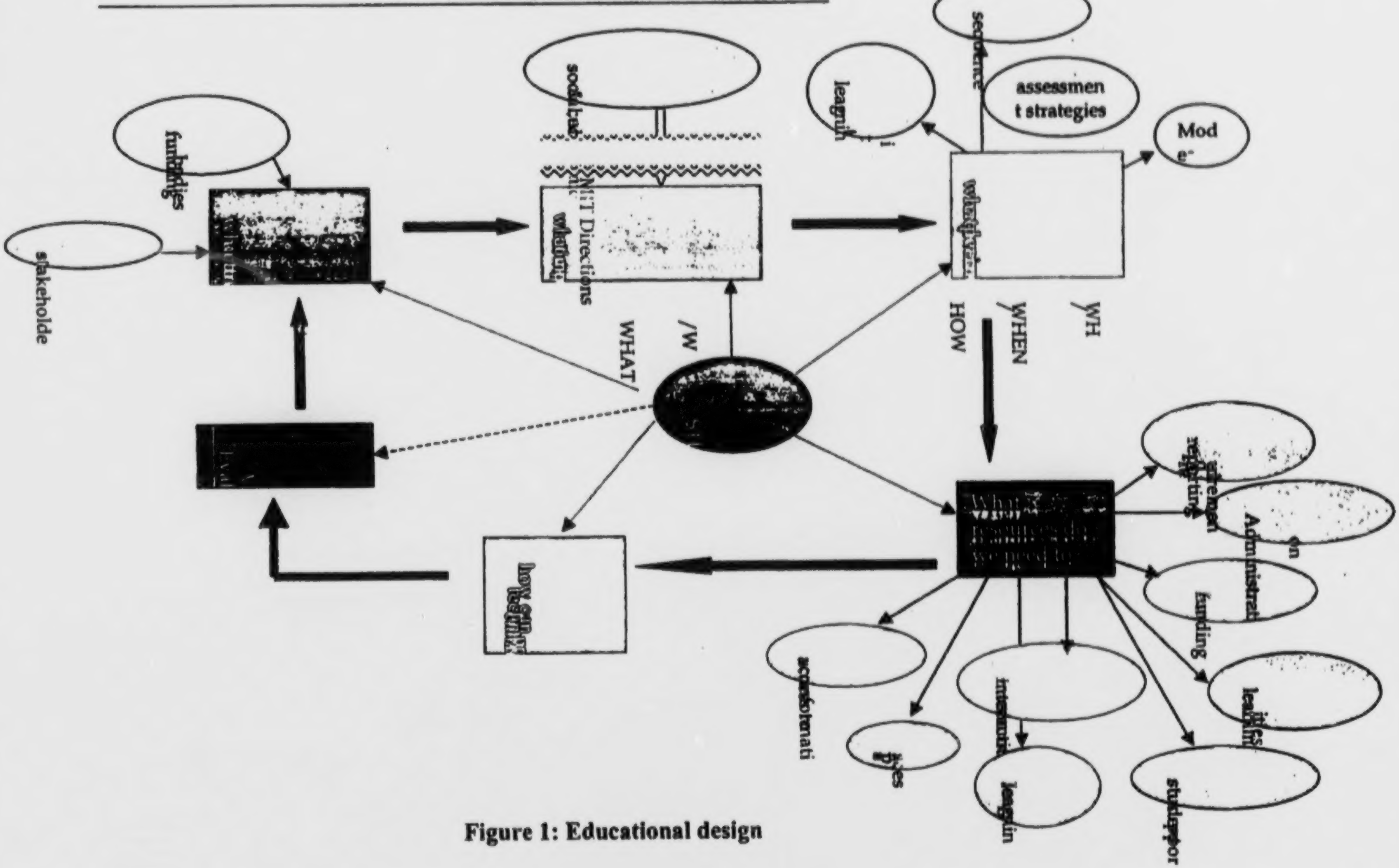

sequence
assessmen t strategies
Mod e
NIT Directions
stakeholde
funding
WHAT/
/W
HOW
/WHEN
/WH
Administrat
funding
studsuppor

Figure 1: Educational design

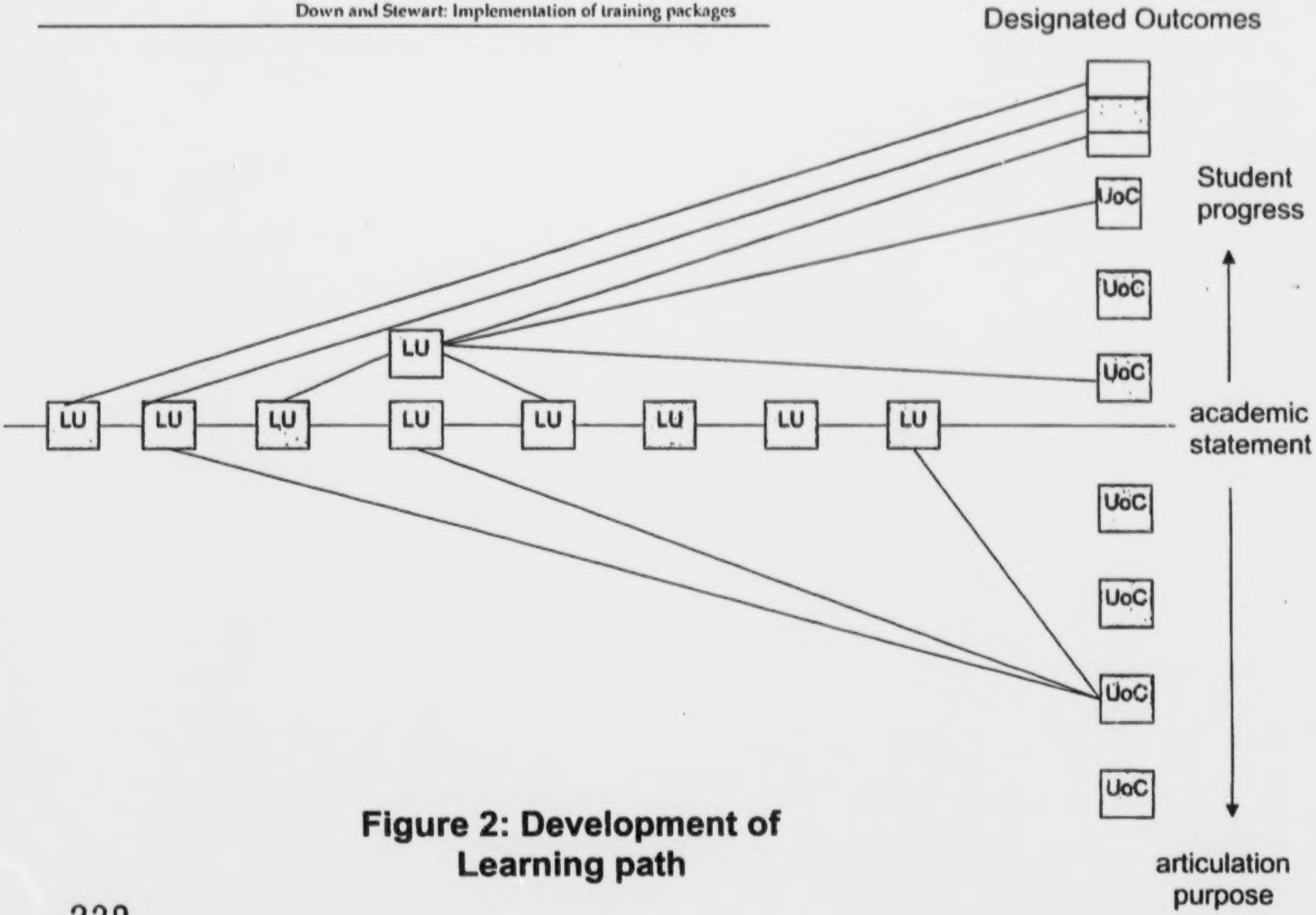
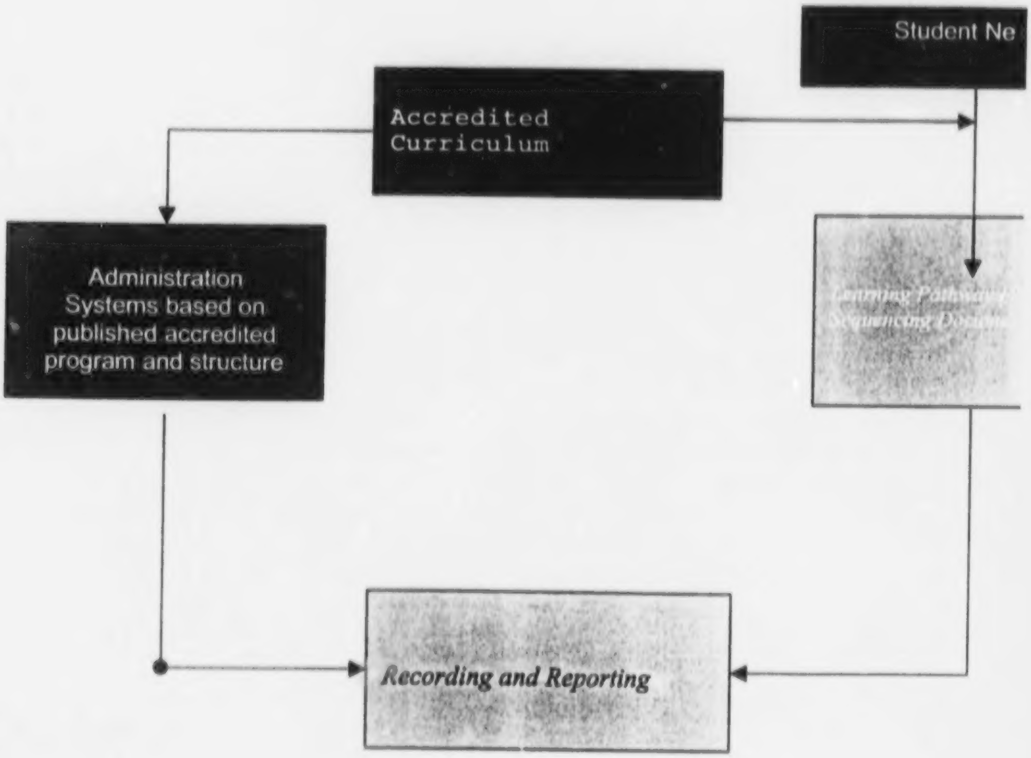

Designated Outcomes
UoC
UoC
UoC
Student progress
LU
LU
LU
LU
LU
LU
LU
LU
LU
academic statement
UoC
UoC
UoC
UoC
articulation purpose

Figure 2: Development of Learning path

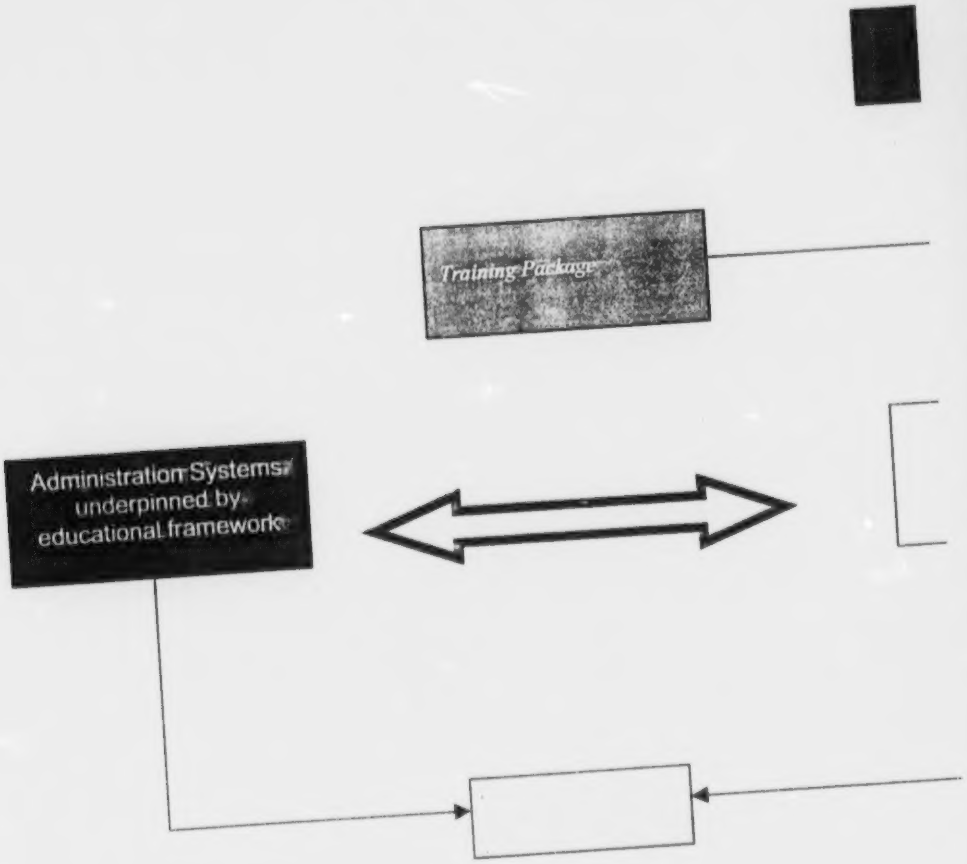
Figure 3: Conventional administration and learning system development


Student Ne
Accredited Curriculum
Administration Systems based on published accredited program and structure
Learning Pathway
Sequencing Docu
Recording and Reporting

BES AVAILA

BEST COPY AVAILABLE

Figure 4: Reformed approach to administration and learning system development


Training Package
Administration Systems underpinned by educational framework

BEST COPY AVAILABLE

Teachers' needs in supporting students with a disability in the classroom: a research report

An introductory paper to some aspects of the report by G Eraclides and V Achia, May 2000, Box Hill Institute

George Eraclides

Box Hill Institute of TAFE, Victoria

> The satisfaction of a teacher comes from the internal reward of seeing a student do something they've never been able to do before. When you unknowingly come up against a student who has a disability, and no matter how hard you've worked on the situation, in the end nothing gets through, then you realise there was something wrong and you should have recognised it and didn't - then it's a bit like being in the doldrums. I should have done better.

This quote more than any other encapsulates the predicament of a teacher working with a student with a disability. An experienced teacher feels frustrated for a number of reasons. He/she 'discovers' one of the students has a disability. The teacher tries to deal with it; realises the limitations of his/her knowledge and skills; the teacher fails. That teacher accepts he/she should have been able to do better. The traditional reward for the teacher is simply not there in this case.

Our research uncovered many such stories. Even teachers who believed they coped quite well felt they could do better given the right sort of assistance or resourcing.

In the overwhelming number of cases, teachers were committed to providing fair and high quality outcomes for all students irrespective of whether these students had a disability.

It is an indication of how educationally challenging an area this can be, where even with the best will in the world, and targeted assistance by specialists in the Institute, there can be failures leading to inadequate outcomes for a student and outright frustration for the teacher.

The method

The research was initiated by Box Hill Institute (Melbourne) at the request of the Disability Liaison Unit of the Institute, in order to find out what teachers thought about working with students with a disability and what kinds of factors affected their practices.

Box Hill Institute is a multi-campus facility in the eastern part of Melbourne, providing a very broad range of VET courses as well as various preparatory, VCE and specialist courses. Disability services are centralised at one campus in reasonable proximity to the others.

Our method was based on the techniques of qualitative research. We spoke confidentially and at great length to 12 teachers in individual interviews. They were a balanced group in terms of gender, from various campuses and diverse subject areas.

We grouped our standardised questions into four categories:

- background and experience
- attitude
- professional issues
- recommendations.

Following the collation of the transcripts, a special meeting was held in order to address professional concerns and make recommendations. The full research report makes use of direct quotes in order to allow the teachers' own voices to be heard.

We deliberately did no research into disability policies and practices at the Institute, in order to minimise the effect of our prior knowledge at the interview stage. We were concerned to record the impressions and attitudes of teachers in as pure a form as we could.

The full report, as published by the Institute, accurately reflects the research process. No attempt was made to correct the grammar or amend the intensity of the language used.

Findings

There were numerous findings which were consistent with expectations and which add to previous research; then there were some which confounded and surprised us.

Teaching students with a disability is of course a challenge. It does require more time and effort. Teachers had little, if any, formal training in dealing with disability; they based their practice on whatever teaching experiences they previously had, the support of fellow teachers, and the assistance of the Disability Liaison Unit (DLU). The chronic shortage of resources in TAFE and the overall pressure to do more with less were cited as some of the reasons why teachers felt they did not do as well as they might. Combined with a sense that they do not fully understand the implications of a disability on the learning process, it therefore is to be expected that teachers are very concerned about the quality of their work.

Overwhelmingly, there was a belief that people with a disability belonged in TAFE by natural right, by the principles of social justice, and on the basis of fundamental human goodwill and a sense of welcome to all.

The commitment to quality and self-improvement was clearly in evidence, and most teachers believed that they were positively challenged by their experiences in teaching students with a disability.

Teachers found some kinds of disabilities harder to deal with than others (for instance those involving mental states); they needed a knowledge base on learning styles appropriate to different disabilities; and there were some problems in the relationships between teachers and support workers. Ultimately, without the specialist help of the DLU, there would have been many teaching failures.

In this paper, I would like to concentrate on only four findings that contained a few surprises for us.

The information and knowledge gap

There was a distinct gap in the professional knowledge of teachers in dealing with certain disabilites. Teachers wanted information on an as-needed basis, about how to teach students with different disabilities. Whether this involved training, documentation, best practice examples, liaison with an educational expert, or fact sheets about different disabilities, it had to be timely and in a usable format:

> Whether it's a lack of maturity or a learning disability, I can't tell the difference ... that's the problem ... I don't have the expertise.

or

> I'd like to see every teacher who's involved with disabled students receive some background as to how we can best perform for that particular student.

More disturbing is that there seemed to be a significant information gap between Institute policy, driven by government legislation, and the level of teaching practice. This was revealed in a general way, by comments and recommendations made both during individual interviews and at the special meeting which was held.

The fact that teachers made many suggestions, some of which may be considered impractical, that were contrary to policy guidelines or were already in place - raises a general information issue for the Institute and its specialised agencies. People delivering services are in some cases not fully aware of what initiatives are being developed, or what the policy limitations, internal and external, are on the organisation delivering vocational education.

Clearly, what is going on at one level of the organisation is not getting through to another level that needs to know. Significantly, this level that needs to know in many cases does not even realise it does not know. Hence, we have teaching practice not fully informed by the reasons *why* certain things have to be done a certain way and why some changes (say in assessment procedures) *have to be made.*

This situation applied also to the way in which the DLU was understood to operate; for instance, many teachers were not sure what the guidelines were for the interaction of a support worker, a student and a teacher. The situation is possibly even more serious, when one considers the number of sessional staff that are now being employed, with limited (if any) induction processes. Teachers rely on what they think is reasonable, or what their informal mutual support system provides for them. Some of the implications can be seen in the next group of findings.

Classroom practices and discrimination

In the real world, how do you give equal opportunities to someone with a disability?

This was the fundamental question for many teachers. Even assuming the definitions of an equal opportunity policy are understood, how do you do it in practice?

Teachers wanted to be fair in their teaching practices where students with a disability were involved; but they wanted to be fair without disadvantaging other students. Fairness to all, as in:

> You can't be seen to be favouring a student with a disability. So any changes in teaching have to be to everyone's benefit.

After all, as teachers explained, other students that do not have a disability may be just as needy for a whole range of different reasons. They may have quite different levels of personal learning competence, problems with literacy or numeracy and unrecognised barriers to learning such as: emotional problems, past failures, lack of family support, poverty, poor language skills, or even a personally unacknowledged disability - a process of denial.

Because it was unclear to teachers how far they *should go* in supporting students with disabilities, they therefore used their own judgement and went their own way:

> ... they are just another student as far as I am concerned.

or

> You can't really teach to one person. I think you have to keep a balance of what you feel is the best way to present a subject to a group. After all it is not individual tutoring.

Some did the basics - and believed that was the fair thing to do - or they left matters to the support worker, or they treated everybody the same (after all, is not equal treatment the same thing as being fair?) Others went a great deal further, believing that students with a disability had a right to special treatment, and for some it was all about catering to individual differences anyway:

> I try to cater for them without making it obvious to anyone else. Maybe some people are entitled to more help than others.

or

> My responsibility is to inspire learning, and to recognise each student's individuality.

or

> ... the classroom is just an administrative concept, not a learning concept.

There were suggestions that a few attitudes were inappropriate and that some practices had not evolved to take into account the integrated classroom; there was even some conflict between support workers and teachers over classroom behaviours, and some teachers were not happy with the role of support workers in the classroom, particularly during the assessment process:

> Support workers sometimes tutor ... not sure what their role is. I thought it was just to take notes or interpret with sign language, but they seem to do more than that.

Discrimination, when it did take place, mostly occurred as a result of an earnest attempt to be fair - fair to all, as well as the student with a disability.

The possibility of being unfair to a student with special needs, when motivated by the best of intentions (being equal and therefore fair) - and not realising that by avoiding positive discrimination you could actually be unfair (hence unjust) - was surprising. Clearly, guidelines embracing the concepts of fairness, and the qualifying role of special needs and positive discrimination, should be part of the professional understanding of all staff.

Teaching practices that had seen better days were acknowledged by teachers, and they wanted the knowledge and skills to do better. Systemic problems, such as having to teach by lecturing to large numbers of students, in what is essentially a 'take it - get it - or leave it' approach, works against the most disadvantaged, and that usually means someone with a disability.

Assessment

Some teachers expressed a great deal of concern about the assessment process involving students with a disability.

A student is being assessed for competency in a subject area, but because of a disability they require some form of assistance or a modification to the assessment model used for all students.

Teachers were concerned, even angry, about how much help was being given to a student, believing in some cases it was not fair (as in overall fairness) and therefore inappropriate. However, they were not sure whether they could take action (see illustrative quote above). For instance, if a support worker prompts a student (and are they allowed to do that?), or the student just goes onto cruise-control while the support worker becomes a vital part of the learning process, contributing significantly to team-learning outcomes (assessable in some courses): is that fair?

> If the student uses the support worker correctly, that's fine. When they use them to slack off ... not happy with that. It has happened that the scribe is more involved in the class than the student, who is reading a novel!

How far should you go in changing the assessment model to accommodate a disability? Not very far in some trade areas - *not at all!*

> We don't dare put out a student that has not met the competencies required, disabled or otherwise (eg a procedure about testing a live circuit). Errors on the job cost lives!

In other areas it is not so clear that a revised assessment does in fact measure competence. Of course, it all goes back to how clearly the CBT process has been carried out (for instance, how well definitions of outcomes have been articulated); but the reality is that in a lot of courses ambiguity exists, and in some cases (for instance, preparatory courses) there is a great deal of slack: is a student with a disability considered competent if they type up an A4 document to a particular standard, and they do it with no errors - but it takes them two hours to do so? How about if they are prompted by a support worker or assisted if there is a glitch with the computer?

If the student above thinks they are 'competent', when in fact they are far from being so by workplace standards, can that be a good thing? Questions like these were posed by some teachers, and there are no easy answers. Indeed, there seem to be no suggested guidelines or examples of 'best practice' with alternative models of assessment:

> That is the pressure put on us by the DLU [Disability Liaison Unit], to make us rethink ... which is helpful in some ways - to rethink what was done before - but there are limitations, and it does take time.

Teachers felt they were at times under pressure to modify assessment models (not in itself a bad thing if carried out properly) - but where is the time supposed to come from? How do you ensure the degrees of difficulty are consistent with what other students have to go through?

Teachers involved in assessment modifications end up having less time for other things, including helping students with a disability in other ways. In fact, as one teacher pointed out, in her subject area there were great difficulties with students that did not meet the assessable criteria of the DLU, yet they had other 'just below the threshold' problems that needed support (which equates to time). These students could not access any significant amounts of assistance. There are many such students, so what is fair after all?

Selection process

In the special meeting that was held after the individual interviews, the question of how students get to do what courses made a strong appearance.

From the special meeting:

> The attitude of TAFE, where there is a presumption that anyone can do a course, needs to be reviewed in the light of the changing standards which apply to education and employment.

There is a perception that because it is TAFE, there is an obligation to take practically any kind of student - even where their suitability for a course is doubtful. Some teachers believed the system should be far more rigorous, particularly when dealing with students with disabilities. This should be the case whether the students are coming through the normal year 11/12 processes, as pre-apprentices or apprentices, or through direct applications.

It is clear that people undertake courses for all sorts of reasons, and getting an employable skill is only one major reason; some people are only concerned to develop a skill (not reach an industry standard), or to interact with other people in a social setting. They do a course on the recommendation of family, friends, or even at the behest of a guardian agency. Yet teachers are generally required to teach all students to workplace competencies, with a job as the ultimate destination.

Most departments undertake some sort of interview as part of a selection process, but it was suggested that this process was not an effective filter. Nor was there sufficient (if any) advice to the teacher or potential student about what alternative courses or areas of personal development may be appropriate (perhaps with a community-based provider or some other TAFE partner).

A particularly striking example was given by one teacher of a student with a disability (Asperger's Syndrome) enrolled in a course requiring a great deal of social interaction and team work (part of the assessment process). When 'competent', this person will be working in an occupation where social interaction is the core of the work. After employing alternative assessment processes, this person has since passed through this course and enrolled in another subject area; it is doubtful he or she will work in the area of original study.

Again, from the special meeting:

> Better selection techniques will ensure that students can cope with the course content and the workplace their competencies will take them into.

While not wishing to seem to deny opportunities to anyone, teachers felt there should be some guidelines for teachers and potential students (and are there such guidelines or policies informing practice? See the above section on the information and knowledge gap), making it clear that a selection process worthy of the name exists; and disability is a factor (among others) determining whether an application can proceed.

Some teachers were not sure what was allowable under various Acts of Parliament or educational policies which regulate what opportunities exist for accessing TAFE. Our impression was that some teachers were not fully on top of the various social justice issues which form the foundations of policy.

Some recommendations

From just the few findings and comments examined above, it is clear that a great deal could be achieved by the timely provision of information, development of guidelines, and professional development intended to increase the knowledge base of teachers:

1. Get the information already in existence to the teachers, eg Government and Institute policies or procedures; and target new teaching staff.

2. Prepare and distribute guidelines as to what is expected of a teacher in the classroom and the use of support staff in classes and during assessment and in-services.

3. Get information and training on disabilities and learning styles; examples of best practice and an ideas database.

4. Prepare and distribute guidelines regarding allowable assessment variations and examples of successful practice and what criteria can legitimately apply

when selecting students; review selection procedures in line with Institute disability policy; and clarify any points of contention between policies and practices.

Some of the recommendations are already being addressed. The vital role of specialist units like the DLU, as a support to students and teachers, is beyond question.

The focus of any change should be on the teaching areas, where educators have an immediate impact on students. One of those areas is attitudinal. Consider the following: TAFE is seen as an area chronically under-resourced. It was a universally characteristic response on the part of teachers we interviewed to raise their eyebrows, conveying a mixture of cynicism and *if only* wistfulness, when asked to consider a world of adequate resources when making recommendations.

This may seem to be an amusing conditioned reflex of people in TAFE, until it is realised that one of the consequences will be people placing self-imposed limits on their ideas for change. Eventually people stop believing that worthwhile change is possible.

We had a feeling when we were completing our research that matters were finely balanced; there was still time to negate cynicism by taking advantage of some of the heartfelt suggestions for change. It is therefore a great encouragement to ourselves, teachers, and others working in the disability field, that some of the issues raised in the report are now being addressed.

Contact details

George Eraclides
Email: g.eraclides@bhtafe.edu.au

Interpreting educational research using statistical software

Elizabeth A Evans

University of Sydney, Cumberland Campus, New South Wales

The VET sector naturally produces a gold mine of data waiting to be retrieved, assimilated and interpreted into meaningful information. Senior staff need this information to make informed decisions to improve student outcomes and optimise scarce resources. There are a number of software products on the market that will assist VET staff and researchers in their quest for answers to complex questions. Providing the right question is asked (and even if it is not the right question to ask), the use of these software products can save hours of drudgery and the user does not have to be a statistician to find the answers.

This paper is based on a live demonstration of how a typical set of educational data can be examined using quantitative statistical software. A research question will be investigated by examining the data to establish if a relationship exists between two or more variables, such as hours of tutorial support and resulting grades.

It is not my intention to discuss the academic governance of research protocols. In fact, I debated as to whether or not I should write a paper, given that I was demonstrating the benefits of a computer software product to do quantitative statistical analysis of research data. Then I thought that I should, so that the first impression I expected from the audience would be reinforced, encouraging them to think about how useful statistical analysis could be in making timely data-based decisions.

When I submitted my abstract, I was working for the Technical and Further Education Institute (TAFE) of New South Wales (NSW) and intended to use some 'real' VET data. Between then and now, I've moved onto the University of Sydney and so I have lost that opportunity, although I would not consider it to be vitally important. It's not the data itself, but the statistical analysis of it that I wanted to show you.

I decided to pick the topic of tutorial support because it has been widely debated within the VET sector, both in terms of its cost and its benefit. Setting up a research scenario in my mind, I created 300 cases from random data generation which I then adjusted to correct obvious error (for example, you could not be born overseas, be 22 years old, and have been in Australia for 30 years), and then further to be able to highlight the analysis.

Each case represents a student. Each student was required to take a literacy test (for both numeracy and language), and from those results the student was recommended to access a quantity of tutorial support hours. Their use of tutorial hours was recorded, and at the end of the semester, all of them took a communications test.

There were 11 variables identified: Gender; Age; Country of origin - collated into 5 global regions; Native language - first language; Years in Australia; Prior Education - < Grade 10, Grade 10, HSC, Tertiary; Faculty enrolled - six different faculties; Initial literacy test mark, Tutorial hours required, Tutorial hours used; and Final communications exam mark.

The quantitative statistical analysis software I used was SPSS Version 10. There are other similar products on the market, and it is worthwhile comparing them. I learned this software through compulsory research courses in graduate school, and considered it a valuable tool for management to use in a practical way to explore and measure their environment, and their interaction with it.

Research is all about getting to know your data. SPSS allows you to look at your data from all sorts of angles, and this is known as 'descriptive' statistics.

As a layperson, I would like to know how many students are female or male, and I would like to know how many students are in each faculty. I can find this out by using Frequencies from the Analyse - Descriptive Statistics menu.

GENDER

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	131	43.7	43.7	43.7
	Male	169	56.3	56.3	100.0
	Total	300	100.0	100.0	

FACULTY

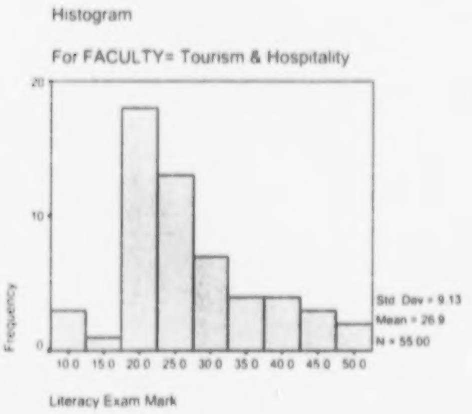
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	General Education	77	25.7	25.7	25.7
	Business	63	21.0	21.0	46.7
	Tourism & Hospitality	55	18.3	18.3	65.0
	ITAM	40	13.3	13.3	78.3
	Engineering & Manufacturing	37	12.3	12.3	90.7
	Rural & Mining	28	9.3	9.3	100.0
	Total	300	100.0	100.0	

This gives me some valuable information. It confirms that I have 300 cases and no 'missing' cases, and it gives me the percentage contribution of each category of the variable.

What I'm really after is some sense of the literacy test marks, and there could be many things that could impact upon the marks achieved, such as prior education, country of origin, what a student's first language is, and how long that student has been in Australia. But first I would like to see if the literacy marks are different from one faculty to another.

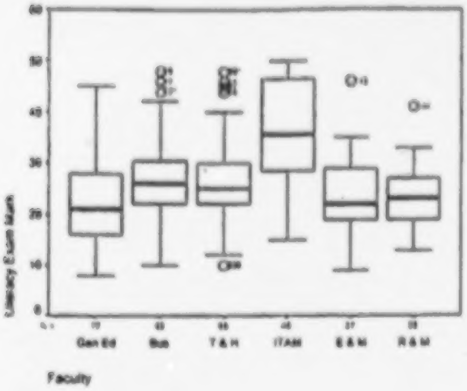
By running 'Explore', I will get a table that shows me the shape of the distribution of the marks in each of the faculties. Shape is defined by a number of statistics. What is the average literacy mark in General Education or in Engineering and Manufacturing? How far do the marks range? Are the marks 'concentrated' around the average or are they 'spread out'? SPSS provides very comprehensive descriptive statistics under Explore, but what is even more 'enlightening' to the layperson is the graphical representations.

Below is a histogram, or frequency chart of the literacy test marks for the faculty of Tourism and Hospitality. I could have asked for a 'normal curve' to be included, which would enhance the imagery of the spread of the data. You can see that the majority of the marks fell +/- 20 marks out of a possible 50 marks. SPSS provides some useful information such as the average mark (26.9), the standard deviation (26.9 +/- 9.13) and the number of cases (students) who took the literacy test and are enrolled in this faculty.



SPSS wraps up its 'Explore' analysis by giving you what is called a boxplot.

This gives you a helicopter view of the literacy marks across all faculties. The box itself represents the interquartile range of the data (middle 50%), while the 'whiskers' are the last data values within 1.5 lengths of the box. The heavy line within the box is the median, and the little circles that lie outside the whiskers are 'outliers', while the appearance of asterisks would be 'extremes'. This is valuable to know, because it means the data value is 'unusual', and you may want to check that the data entered was correct and not a mistake.



We may also want to explore if there is a difference between females and males. Using the literacy test mark as our focus, we can run an Independent samples t-test to obtain a probability statement about the difference in means between females and males. The following table is produced:

Independent samples test

		Levene's Test fo Equality o Variances		t-test fo Equality o Means		
		F	Sig.	t	d	Sig. (2-tailed)
LITERACY Literacy Exam Mark	Equal variances assumed	.094	.759	.594	298	.553
	Equal variances no assumed			.597	284.409	.551

There are 131 females and 169 males, so the groups are not homogeneous (as is often the case). The t-test assumes homogeneity, so SPSS gives you two sets of t-test results. For the means to be significantly different between females and males, the Levene's Test would have to be less than .05 - but this is not the case. The significance of the t-test is much greater than .05, so there is no significant difference between the literacy test scores for males and females.

Do the mean literacy scores between faculties differ? Sometimes it is obvious from the boxplot. In this case, what we can tell here is that ITAM (Information Technology Arts & Media) has a higher range of marks than all other faculties and that its median literacy test mark looks to be significantly higher than the rest. We can ask SPSS to Compare Means, and SPSS gives you a few options, from comparing the actual means into a simple table, to conducting various t-Tests (for two populations), and performing a one way ANOVA (ANalysis Of VAriance for two or more populations). A one way ANOVA shows you how significantly the mean of a given faculty differs to means of the other faculties.

ANOVA

LITERACY

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6176.682	5	1235.336	16.142	.000
Within Groups	22499.088	294	76.528		
Total	28675.770	299			

This is the first table produced. We are interested in the mean differences within the groups, not just between them. In this paper, I have assumed, as is commonly the practice in social research, that the level of significance is .05; anything below is significant, and anything above is not. The 'Sig' here is .000, and that means there is virtually no probability of us achieving sample means that are different by chance alone. Therefore, the means between the faculties are different, but which ones?

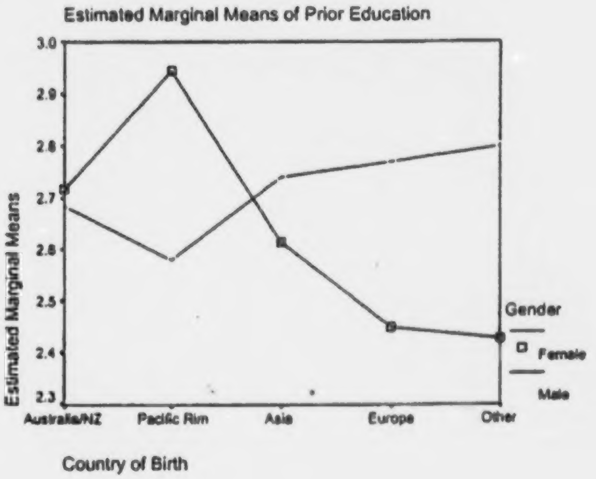
(I) FACULTY	(J) FACULTY	Mean difference (I-J)	Std. error	Sig.
General Education	Business	-5.94*	1.49	.001
	Tourism & Hospitality	-4.99*	1.54	.021
	ITAM	-14.30*	1.71	.000
	Engineering & Manufacturing	-1.13	1.75	1.000
	Rural & Mining	-1.72	1.93	1.000
Business	General Education	5.94*	1.49	.001
	Tourism & Hospitality	.95	1.61	1.000
	ITAM	-8.37*	1.77	.000
	Engineering & Manufacturing	4.80	1.81	.127
	Rural & Mining	4.21	1.99	.521
ITAM	General Education	14.30*	1.71	.000
	Business	8.37*	1.77	.000
	Tourism & Hospitality	9.32*	1.82	.000
	Engineering & Manufacturing	13.17*	2.00	.000
	Rural & Mining	12.58*	2.16	.000

* The mean difference is significant at the .05 level.

This table shows statistically how significantly different each of the faculty means on the left-hand column is to each of its counterparts. I've culled the faculties of Tourism & Hospitality, Engineering and Manufacturing and Rural & Mining from the imported table to keep it brief, but note that, as an example, the Faculty of Business' mean literacy score is significantly different from General Education and ITAM, but not from T&H, E&M and R&M. As expected, ITAM's mean literacy score is significantly different from all of its counterparts. Again, this is useful information, and sometimes the eyes on the boxplot can be deceived!

When we move beyond one-way or one-factor ANOVA, the distinction between main effects and interactions become relevant. A main effect is an effect (or group difference) due to a single factor (independent variable). For example, we want to study the prior education difference across country of origin and by gender. The effect of country of origin alone, and the effect of gender alone, would each be considered a main effect. In other words, we want to test that the country of origin differences are identical for each gender group. Since we are studying two factors, there can only be one interaction. Sound clear as mud? Let us look at the graph.

Visually the overall means for men and women are not the same (women are higher). What is important is that the gender differences vary dramatically over the countries of origin: in Australia, it's about the same, but in the Pacific Rim, women have a higher education than men, while in Asia they have a lower level of education, and this is lower still in Europe. From the table below, there are no main effects and a strong interaction, but the 'model' accounts for only 2% (R^2=.019) of the variance in education. There must be other factors that cause the mean differences.



BEST COPY AVAILABLE

Tests of Between-Subjects Effects

Dependent Variable: PRIORED Prior Education

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	4.635[a]	9	.515	.382	.943
Intercept	1777.255	1	1777.255	1318.983	.000
ORIGIN	.736	4	.184	.136	.969
GENDER	.440	1	.440	.326	.569
ORIGIN * GENDER	3.934	4	.983	.729	.573
Error	391.352	290	1.349		
Total	2540.000	300			
Corrected Total	395.987	299			

[a] R Squared = .012 (Adjusted R Squared = -.019)

Correlation is about quantifying the strength of the relationship between variables. The Pearson product-moment correlation coefficient is a measure of the extent to which there is a linear or straight line relationship between two variables and the value will fall between -1 (perfectly negative correlation - as one moves up, the other moves down) to +1 (perfectly positive correlation - for every unit move in one, there is an identical move in the other). SPSS will calculate the Pearson Correlation on any number of variables you choose and produce a table like the one below. It is easy to interpret. As I mentioned at the beginning, I manipulated the randomly generated data to enhance the SPSS displays. In this case there is a significant correlation of each variable to all others selected, as indicated by the **. Some of them are positive correlations, ie the higher the prior education the higher the literacy score, and some of them are negative; the higher the literacy score, the less tutorial hours required. 'Real' data usually is not so accommodating. In social or market research where straight-line relationships are found, significant correlation values are often between .3 and .6. But what if the relationship is non-linear? SPSS accommodates this with curve estimates.

Correlations

		PRIORED	LITERACY	TUTREQD	TUTUSED	COMMSC
PRIORED	Pearson Correlation	1.000	.552**	-.602**	-.448**	.469**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	300	300	300	300	300
LITERACY	Pearson Correlation	.552**	1 000	-.868**	-.477**	.908**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	300	300	300	300	300
TUTREQD	Pearson Correlation	-.602**	-.868**	1 000	.559**	-.778**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	300	300	300	300	300
TUTUSED	Pearson Correlation	-.448**	-.477**	.559**	1000	-.186**
	Sig. (2-tailed)	.000	.000	.000		.001
	N	300	300	300	300	300
COMMSC	Pearson Correlation	.469**	.908**	-.778**	-.186**	1000
	Sig. (2-tailed)	.000	.000	.000	.001	
	N	300	300	300	300	300

**. Correlation is significant at the 0.01 level (2-tailed).

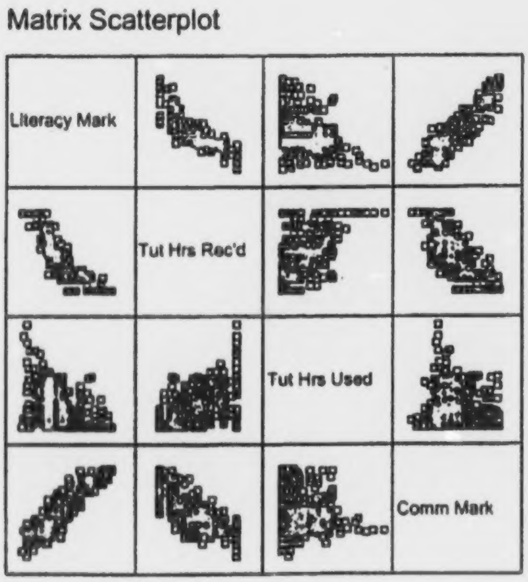
BEST COPY AVAILABLE

Correlation analysis provides a neat single numeric summary of the relationship between two variables, but it would be more useful from a practical point of view to have some form of predictive equation. Regression analysis is a statistical method used to predict a variable from one or more predictor variables. The first thing we do is construct a scatterplot to get a vision of the relationship.

The scatterplot SPSS has prepared is called a Matrix Scatterplot, and what it shows is a scatterplot for each variable to all other variables. As you would expect, there is likely to be a positive linear relationship in some, a negative one in others, and little or no relationship in yet some others.

Visually, it would appear that there is a positive relationship between one's literacy mark and one's final communication mark; if you did well in the initial literacy test, it is likely that you did well in the final communication test. There appears to be a negative relationship between the literacy mark and the tutorial hours recommended. Again, this makes sense - if you scored well on the literacy test, the tutorial hours recommended would be low or nil.

There is also a negative relationship between Tutorial Hours Recommended and the Communication Mark (the logic of which follows from the literacy test). There appears to be little or no relationship between the literacy mark and the tutorial hours used, nor between the tutorial hours recommended and the tutorial hours used, nor between the tutorial hours used and the communication mark. It may be that the tutorial hours do not have much effect on the outcome!



Because we have already discovered through correlation that the variables were related, we have bypassed simple regression for multiple regression, where we will construct a predictive model to estimate the communication mark to be expected if there are certain values given to the literacy mark, the tutorial hours recommended, and those used.

The important number in the model summary is the R Square. The R Square measure of .911 indicates that these three predictor variables account for about 91.1% of the variation in the final communications mark. In real life, it is not likely that you get this close!

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.954[a]	.911	.910	2.79

a. Predictors: (Constant), TUTUSED Tutorial Hours Used, LITERACY Literacy Exam Mark, TUTREQD Tutorial Hours Recommended

b. Dependent Variable: COMMSC Communications Mark

Coefficients

		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
Model		B	Std. Error	Beta		
	(Constant)	5.152	1.289		3.996	.000
	LITERACY Literacy Exam Mark	.885	.033	.935	26.736	.000
	TUTREQD Tutorial Hours Recommended	-.158	.036	-.163	-4.398	.000
	TUTUSED Tutorial Hours Used	.311	.019	.352	16.778	.000

Dependent Variable: Communications Mark

The coefficient table produced by SPSS gives you the Betas you need for your multiple regression model of: $Y = (ß1 * X1)+(ß2*X2)+(ß3*X3)$… What is really important here is that you cannot predict outside of your range of existing values, so you must pick a literacy mark between the lowest and highest recorded (X1), and the same applies for the tutorial hours recommended (X2) and the tutorial hours used (X3).

What is important to note here is that at the end of the day, in these cases, the final communication mark principally depends on the mark achieved in the initial literacy test. If the cases were 'real' (and I acknowledge that they are not, and perhaps for the best), this would give administrators some food for thought about the resources they devote to tutorial support as it relates to educational outcomes.

Conclusion

I would like to be able to tell you just how easy all of this is, and how the software can be used in a variety of ways to the benefit of your institution. I can certainly attest to the latter, but like all software, your proficiency is a matter of time and effort. An introductory statistics course (for Dummies) would not go astray, as it has a language of its own, although the concepts are quite intuitive.

You should also know that I am an administrator, and not a professional (or otherwise) researcher, so I am always looking for information and I am always concerned with expenditure! If you researchers out there thought this paper was not to academic standards, then you are absolutely right. It has been written for the lower earthlings who struggle for answers every day.
One thing that you may have noted is that I have imported the SPSS output into this word document alternatively as an object, and also as a 'copy/paste'. SPSS (colourful) output can really enhance your reports.

Where this kind of software is a powerful tool, and can save you a significant amount of money, is in market research. Educational institutions have realised how important it is to measure their environment and their customers. Without debating the issues or reliability and validity (ie having someone externally prepare the measurement tool, administer and analyse the results), it can be very useful to analyse secondary data (such as the ABS) as well as primary data (conducting your own student satisfaction survey).

I encourage you to explore these products and invest a little to get a lot. Happy analysing!

Contact details

Elizabeth Evans
Email: E.Evans@cchs.usyd.edu.au

Abstract

Leadership seminar

Ian Falk and others
Director, Centre for Research and Learning in Regional Australia
University of Tasmania

The issue of strong leadership in VET is assuming critical national significance in these times. How does VET leadership and management at a local level respond to the pressures of globalisation and instant global communication? At issue is the response to change in the environment of VET organisations, especially RTOs. Is the required balance between leadership skills and management skills changing as a result? What is the nature of leadership and management in VET for the new millennium? What are the implications of these matters for the future of VET leadership and management? There are four projects on Leadership in VET currently underway in Australia that address these issues. Three are funded by NCVER and one through the TAFE Directors Australia. The seminar will present and synthesise emerging views and findings from these projects and open for discussion the implications of local VET leadership responses to future VET scenarios.

What, if anything, is a training/learning culture?

Dr Jane Figgis
AAAJ Consulting Group
Western Australia

This session explores the usefulness and validity of the construct 'a training/learning culture' in researching and understanding (and in recommending and marketing VET programs or policies) for enterprises and communities. It begins with a brief presentation from the four projects that NREC funded for 2000 under the research theme 'training/learning culture':

- Building a learning and training culture: the experience of five OECD countries – Peter Kearns and George Papadopoulos;
- Case studies of organisations with established learning cultures – Robyn Johnston and Geof Hawke;
- Factors influencing the implementation of training in selected industries – Lee Ridoutt;
- What convinces enterprises to value training and what does not? a study in using case studies to grow an Australian training/learning culture – Jane Figgis (for the WA Consortium).

The point of the session, however, is to stimulate a general discussion about the subject. Some of the issues which will, necessarily, be addressed include: how do we define a culture that uses training and learning effectively? what are the stages in getting enterprises, individuals and communities interested in training and learning? is there an important difference between training and learning? how to understand the role of micro-cultures in an organisation and their relation(s) to the overall culture?

Theme: translating research into practice
Key words: enterprise training/learning culture

Opening Pandora's Box
(keynote)

Bruce Gilbertson

Educator

Thank you for inviting me to be your guest this evening and to talk with you over dinner. I hope you have a rewarding time at the 2001 AVETRA Conference. 'Research to Reality: Putting VET Research to Work'.

The topics which caught my eye were:

- forming and fostering research partnerships
- lifelong learning
- research for quality improvement, and
- identifying NEW research directions.

It would appear that the outcomes of this conference invite change. I applaud that. However, I need not tell you that change is always accompanied by fear and fear has a habit of closing the lid on change. Is the devil you know better than the one you don't know? The only reality in such thinking is that if fear wins and the lid on change is closed, noone ever gets to know or experience the possibilities that could have been.

I do not know enough about education to comment on the adequacy of my own. I am here now and I experience what I now experience having come through it. But given more recent experience about which I will later touch upon, my mind races at the possibilities were I to have been educated in a different way.

Education is such an important thing and many wish that if only they had that little bit more education, this or that might have happened. Take the story of the two Australians looking for work in London. They saw an advert for two footmen which said, 'References essential'. Showing some ingenuity, Bruce said, 'Right, I'll write you a reference and you write one for me'. And so they arrived for their interview and offered the Duchess their glowing references. 'First', she said, 'Formal wear here means wearing kilts, so down with your trousers and let me see your knees'. A little surprised, the Aussies dropped their trousers. The Duchess gave a nod of approval and said, 'OK, now let me see those testimonials'. Well, after being thrown off the property, Bruce said to his mate,' With a little more education, we would have got that job'. I digress.

One clear recollection of early school for me was watching a friend of mine climb a tree and refuse to come down until his parents were called to the school. He'd been dressed in a pinafore and had a ribbon tied in his hair as punishment for bad behaviour. He was always a trouble maker and regarded as not being very bright. When I reflect on his protest today, I think of how intelligent it was for an eight year-old. What were the possibilities for a mind such as his, particularly in circumstances where educators were trained to observe the value of such a response?

I learned my times tables backwards and sideways and every which way in year 5. Did I know why I was doing this? No, but I did it. It was the practice of our maths teacher to call every student with a wrong answer to stand out the front to await a mass caning. The only person not caned each day was the last one remaining in the body of the classroom who had survived. Some students simply went out the front before they were called to answer. The teacher never looked upon this as an intelligent response to a futile exercise.

One student, when asked 'How many months in the year have 28 days?' replied 'They all do!' I could never understand why he got detention for trying to be smart. At twelve I undertook a vocational guidance test and interview, arranged through the Catholic school I attended. I lost sleep over the fact that all indicators suggested I was going to be a priest. Finally, the parish priest let me off the hook and said I would know my calling and he didn't think it was the priesthood for me. Nonetheless as an outcome of that meeting, I did end up as an altar boy. Somehow, advice often carries with it a bias or attached agenda. His advice relieved me, but I continued for the next year or so expecting to hear a voice in a deep and echoing tone say: 'It's time'. Eventually I did hear that voice but it was not from God, but rather Gough (as in Whitlam).

Even my University days were perplexing for me. It was not until years later, I was able to understand why I did not feel comfortable doing what I was doing. Now I look back and I beg the question why noone saw or understood the direction my life seemed to be taking from almost its inception.

From about age three, I sang. I've always sung. My brother always wanted to go outside in 40-degree heat to play cricket. He would have to drag me off the cool laundry floor where I would lay for hours humming and feeling and listening to the resonation of my body. At the age of 10 or so, I entered myself in talent quests and wrote to TV stations and sang on them. At 12 I was singing in children's opera and by 16 I had started my own rock band, buying my first microphone and PA system with money I had earned from singing.

So, surpass surprise, I decided to be a musician. But I was distracted by the system into believing there was no security in being a musician. I was not encouraged to believe in myself or to follow my instincts. On the contrary, I was encouraged to be monetarily secure. The fear of security closed the lid tight and I became someone I was not.

I failed three of my four subjects in first-year Law. I spent hours in the library researching old cases and creating wonderful points for discussion and argument. Oh no no no! If I wanted to pass, this extra search for knowledge must stop. Go to the tutorials and give back to the examiners what you learn in the tutes. I therefore learned how to pass exams at university, and upon leaving the system I learned how to be a lawyer from real-world experience, where my research methods from my first year became invaluable to me.

In spite of considerable success as a lawyer, the desire to sing was always tearing away at me. The advice from the old priest had been right. The call had been coming loud and clear, but I had been too distracted by the 'well meaning' to hear or recognise the call. I ultimately listened to the call, sold my share in my legal practise and went to live in Vienna where I studied voice and drama, and ultimately sang in Europe and America before returning to Australia to have a family and continue an international career from here.

This history emphasises my personal experience. However, my story is not unique. The number of people working in environments not true to their calling is alarming. Their stories are similar and differ only to the extent that they have still yet to open the lid to the possibilities to be explored in their own lives.

In Vienna I went through yet another teaching process as a student of voice in a language I had to quickly learn, because my teacher did not speak English.
It was through this experience that I developed the philosophy I now practise as an aid to singers who seek my assistance. My opening statement to them all, is 'I am not your teacher, you are your own teacher'.

Before I speak about that philosophy, I want to turn to the topic I came up with for this chat with you this evening: 'Opening Pandora's Box'.

There are two versions of the Pandora myth. In the first, Pandora was given a jar by Zeus and told not to open it. Curiosity got the better of her and on opening it, all the evils and ills of the world escaped. She tried to put back the lid, but only hope remained. In the second version, Zeus gives Pandora a box containing marriage presents. Being curious, she opened it and all its blessings flew out of it, leaving hope behind.

Guess which version I prefer.

Nowadays, the mention of Pandora's box is synonymous with fear. 'Oh, don't do that, you'll be opening Pandora's Box'. The decision to go to Europe seemed so right for me, yet at the time it was a frightening thing to do and was met with much opposition.

It was not easy to open my Pandora's box. Everything I had been taught distracted me from opening the lid. It would have been easier then to stay a lawyer. Everything I knew, as distinct from what I had been taught, told me to listen to my calling and silence the distractions. I owe a great debt of gratitude to my wife, who was willing to open Pandora's box with me. That experience taught us both that the lid on Pandora's box can be opened more than once and it is one lid we try to leave open.

I continue to perform as a singer, but many other possibilities have come my way in writing, producing and directing and other interesting opportunities.

Under the tutelage of the Maestro in Vienna, I quickly discovered that the initial difficulty I faced because of language was in fact my biggest asset. On the one hand, one could say I had a learning disability. In those circumstances I developed a process not of learning how to sing, but rather I learned how to learn how to sing - and there is a big difference. My learning disability was a gift.

I now consciously bring this way of thinking to people who seek my assistance with singing. I avoid the usual terminology of voice teaching. I concentrate on bringing the singer to the experience of their voice, rather than give them the physical description of how things work. Their experience is their greatest learning tool. The process is slow at first but like the tortoise, ultimately gets there sooner.

Der Meistersinger

This aria from Wagner's Die Meistersinger von Neurenberg goes on with many more descriptive terms for singing colours and styles - another three or four minutes in fact. No wonder young David the student was having trouble becoming a master singer himself. It is a lovely piece and a lovely role. David tells Walther about all the different tones to be learnt and the timing and phrasing and breathing and so on and so on ... But how distracting this approach to learning becomes. No wonder Walther throws his hands in the air in despair. With so much information - or, what is commonly called data being offered - how can Walther the student really get in touch with experiencing the knowledge of singing himself? Without self-experience, the student is limited to receiving data without experiencing it. To fully understand the data, doesn't the student need to experience what the author of the data has experienced?

Da Vinci wrote and sketched ideas that were not influenced by data already written but came from pure thought. Many others have done the same. Mozart was a prime example. Yet, students who are caught daydreaming get detention.

In today's environment, pure knowledge and new thought is drowned out by the noise of our own existence, and the generations currently being taught rely heavily on past knowledge. Is there any real point in educating by using more of the same data, or should we as educators be searching for the window of opportunity which might just encourage someone to open their own Pandora's box?

Might teachers and teaching systems be better served through guidance - as distinct from instruction, or enlightenment through mentoring - as distinct from lecturing. Let us not forget that the power of learning rests not with the teacher or the structures we have set up in education systems - with their order of chancellors and vice chancellors and senior and junior lecturers and professors and teachers - to mention a few ... and heaven help me if I got them out of order, which I know I did. The true power of learning rests with the students. The real power of the teacher is to get out of the students' way, having invited them and guided them along the path to their own power.

I would invite all teachers to contemplate that the knowledge held by each of their students is as much if not more than their own. The young never cease to amaze me with their freshness and new ideas. It does sadden me to see them incrementally lose this with each passing year of their formal training. Is not the true duty of the true teacher to assist students to open the door to their own knowledge?

Existing knowledge has its place, but mentoring or guiding the next generations to experience their own knowledge has a truer ring to my ears. One needs to assess what part of the curriculum is essential to meet the practicalities of life today. I mean, what is important and what is not?

There is the story of the school inspector who went to a school to inspect the level of education. His first question was, 'Who knocked down the walls at Jericho?' Met by silence and nervous shifting of seats, the inspector pointed to Johnny. 'Can't you tell me?' 'It wasn't me, honest sir!' came the reply. Upon referring this inadequacy to the headmaster, the headmaster said 'What a scally wag, I bet it was him'. To protect his position, the inspector reported this to the parents and friends president, who said 'Well, little Johnny comes from a good family, so take it from me, if he says he didn't knock them down, then he's bloody well telling the truth'. To get some satisfaction, the inspector reported the matter to the Education Department and received this reply: 'With regard to your letter, we must inform you that this is not a matter for this department. We suggest you contact the minister for works'.

Sorry, I digress ... but what is and what is not important?

In Vienna, I learned in a very different way. It is not easy to explain, but in relation to my singing, I came to experience what I can only describe as seeing without my eyes and hearing without my ears. The more I tried through conscious thought to repeat what the maestro showed me, the more difficult it was to find a free and natural resonance. If, however, I effectively became what the maestro showed me, by simply thinking it, then my body responded to the thought - and in a strange way, I was able to observe, through awareness and understanding, what my body did in response to the thought. I came to know and experience and understand what the maestro was offering me. And so, the maestro became in a sense my reference book, and I became my own teacher.

Earlier, I mentioned outcomes to the conference, in particular in relation to research. Recently I have undertaken some research on dyslexia to help a family member. This research reveals conflicting approaches to what the community sees predominantly as a learning disability. Medicos have developed their own practices and policies on dealing with 'the problem'. My research indicates that the education system has never catered, nor does it now cater, appropriately for dyslexics and students with conditions which hinder their learning in the conventional sense.

The interesting thing is, that despite the lack of understanding of this condition and the limited ability on our part to help these students, many of them become very high achievers and still get through the education system. Their experience has similarities in some minor respects to my own learning experience in Vienna. From that experience I pose the question: are these students disabled or do they actually have a gift and hold a key to higher learning? They do it without or in spite of the formal system of education.
Research into how these students learn to learn may be a worthy new research direction for educators in partnership with the medical profession. If they have been able to individually devise ways of self-learning to cope with the system on offer, then the way they achieve this phenomena is worth exploring not only for their benefit but for everyone's benefit.

Albert Einstein, himself a dyslexic, said 'Great spirits have always encountered violent opposition from mediocre minds'.

Pandora's box with the lid shut is mediocrity. By opening the box for ourselves and others, we at the very least release the potential of exciting discoveries in understanding.

So as educators who influence the future through the millions affected by your direction and guidance, I invite you to open Pandora's box through your research, and create the potential for change and new thought to carry us through this millennium and beyond.

Biography/contact details

Brian Gilbertson was a partner in an Adelaide legal firm for seven years. He had a passion for performance from an early age and, after selling his legal practice, went to study voice in Vienna. Since that time he has enjoyed a successful international career as a performer in opera, concerts, as a recording artist and in the musical theatre. He is also asked to give master classes around the world to pass on his experience to younger aspiring singers. He is, in every sense of the word, an educator.

Brian's voice welcomed the Olympic torch to Victoria Square in Adelaide on its epic jouney around Australia. The song 'United in one dream' was selected to be performed at the lighting of the Adelaide City cauldron.

To contact Brian, email: jsloan@adelaide.on.net

Collocation in regional development – the Peel Education and TAFE response

Malcolm H Goff and Jennifer Nevard

Challenger TAFE, Western Australia

Collocation policy in regional Western Australia

The development of collocation of services in regional Western Australia (WA) is an important strand of WA's Regional Development Policy. The intention of this initiative is to foster working relationships amongst stakeholder groups, with a view to ensuring regional WA communities have access to quality services. The benefits attributed to successful collocation, from a state perspective, are a potential to:

- increase the number and quality of services delivered in regional communities;
- reduce capital and operational costs at a local, state and national level; and
- foster superior services in some of the smaller communities.

By clustering compatible services in smaller communities such as Peel, there is the potential to add value to the existing services and help ensure the survival and hopefully 'thrival' (Ellyard 1998) of that community into the future. As the Deputy Premier[1] explained in 1999:

> The promotion of regional areas as desirable places to live, work and invest is extremely important and so too is the provision of the necessary resources to enable regional communities to determine their own destiny more effectively. (Cowan 1999)

The state government Collocation Initiative encourages government agencies, service providers and regional communities to look at opportunities to share resources such as accommodation, infrastructure, utilities and staff in the delivery of related services.

Some small communities experience a tension between local desires for lifestyle, smallness, community connectedness and global economic imperatives which seem to drive them to become parts of larger units and to respond to external economic influences.

As Ellyard (1998) warns:

> By the year 2020, a new paradigm will operate. 'Planetism' will shape job categories, products and services, and work organisations of the first quarter of the 21st century.

A helpful recent example of rural communities redirecting and refocusing their energies and commitment is in Nebraska, USA. Former and current primary producers (Australian Broadcasting Commission 2000) are proving that small communities can cooperate and commit to reinventing themselves and creating an upswing in their economy. Nebraska's income was derived from corn production virtually since the mid-west of the United States was settled. The local and state economy had been suffering from rural downturn for a decade. Nebraska's young people had been migrating to larger centres and the health of the community was declining in step with the added pressures. This was impacting negatively on what had been a desirable lifestyle the community wanted their young to have the advantages of. Economic threats brought on by the impact of commodity prices in global markets suggested that the prognosis for corn production remained poor. Through a range of community managed and designed local 're-education' initiatives, the state of Nebraska has been able to redirect its economy and start to grow a diversity of new work opportunities to provide opportunities for the local young people to remain in these small communities. As well, they have established numbers of initiatives for investing in their own futures.

Education, training and the community

As was demonstrated in Nebraska, and has been evident in Australian small towns, a significant component of a community's health and well being is measured through the priority ascribed to education. Doughney (2000) explains that this is because education is not simply one of many community services but one of the most significant conduits to other important public and private goods such as employment, culture, values and personal autonomy (Hyland 1999). It is therefore in a regional WA community's best interests to have building or enhancing access to quality educational services as a primary goal. Cost savings measures may be a positive secondary outcome of service amalgamations, however if this aspect is treated as a primary motive, then a community may retrieve a short-term difficulty but without implementing any features for building community improvement. As Ellyard (1998) points out:

> Education planners will need to understand more deeply the nature of this world, the values and skills which will be needed for 'thrival' in this world.

Some of the critical features of success for a community working towards improved education outcomes are likely to include their:

- desire to preserve a valued lifestyle,
- desire to participate in particular kinds of work,
- willingness to invest time and income in the reinvention and redirection processes within their community, and finally
- determination to influence, or hopefully control, the community's joint destiny.

The Commonwealth Minister for Education, Dr Kemp (2000), voiced another important need catering for the employment future of our young people in regional locations:

> Ninety percent (90%) of today's teenagers will at some stage in their lives participate in post secondary education whether this is higher education or vocational education and training or both.

Numbers of experiments in collocation and/or services amalgamation in the education and training sectors have occurred in Australia during the last decade. These have met with varying degrees of success. Some examples have included initiatives in Nambour and Coffs Harbour, at the Victorian University of Technology and on the Rockingham Regional Campus of Challenger TAFE. Balancing the interests and needs of the participating sectors often emerges as a challenging factor.

Based partially on its previous experience, Challenger TAFE, along with two education partners - the WA Department of Education and Murdoch University - and the community, is producing a new concept in joint campus delivery of education and training in Peel. The concept goes beyond existing Australian models of education and vocational education and training (VET) campus collocation and incorporates the policy directions of a range of decisions at both Commonwealth and state levels.

The benefit of the Peel approach is that the consultation and deliberation processes undertaken for policy development at Commonwealth and state levels have been incorporated into the planning process at Peel. Initiatives developed for the new campus already sit within the scope (and possibility) of agreed national and state frameworks of agreement.

Commonwealth education and VET policy responses

The Australian Qualifications Framework (AQF) (Australian National Training Authority 1998) provided an opportunity for competency-based VET to be recognised in a variety of learning contexts - schools, public and private training provider organisations, and universities. One of the advantages of the AQF is that it allows for the 'translation' of courses into levels so that school, public and private VET providers and universities have a common language that they can apply to design and manipulation of curriculum and courses.

While the Framework documented levels of competence, the Council of State Ministers of Education (MYCEETYA) formalised some of the necessary processes for applying the AQF to curriculum. In July 1996, the incorporation of vocational education into the schools sector was endorsed and, hence forward, operated in a similar way to VET delivery in other sectors (MCEETYA 1996). Endorsement of particular training products and levels for VET in schools has had to be formally endorsed at a national level, as is the case with other VET providers. This consistent arrangement for each sector has still allowed proactive VET providers in schools to cater to a range of student demands with vocational education and traineeship arrangements.

Challenger TAFE has had a rich experience as training provider and/or auspicing agency to a number of high schools in the south-west metropolitan region, particularly in cooperation with the Excellence in Education Compact schools in the Rockingham, Kwinana, Warnbro and Hamilton Hill areas. These inter-sectoral arrangements have allowed for a rich mix of training products to be delivered to school students. Notably, some trainees have completed their schooling with a VET qualification as well as a tertiary entrance score, keeping their options open for post-secondary education choices.

As well, cooperative curriculum arrangements on the Rockingham Regional Campus of Challenger TAFE and Murdoch University has provided opportunities for TAFE students to progress to degree studies after either their first or second years of TAFE studies. Students can choose to seek a VET qualification and then pursue university studies or can shift to tertiary studies if they have decided their pathway lies in the direction of a university qualification.

State education and VET policy response

These 'mix and match' arrangements have been extended at Peel so that students at Mandurah Senior College, a composite of the upper schools from three local high schools, will have university subjects as an option in their secondary education studies. This arrangement will be enabled by a policy decision currently being considered by the State Curriculum Council to formalise arrangements where secondary school students can incorporate tertiary content within their year 12 studies.

The Peel Campus will have the capacity to provide a mix of studies in secondary, post-secondary and tertiary areas. All secondary students from Mandurah will complete their education at the Peel Education and TAFE Campus. To enhance the development of flexible pathway arrangements amongst the three sectors, an Education Development Unit with a Pathways Officer is being established (Challenger TAFE 2000). This will address the need voiced by David Kemp that students at 'some stage in their lives participate in post secondary education whether this is higher education or vocational education and training or both'.

The shape of things to come

> Ideological control preserves the core while operational autonomy stimulates progress. (Collins and Porras 1995)
>
> The forms change but the mission remains clear. Structures emerge, but only as temporary solutions that facilitate rather than interfere. (Wheatley 2000)

The model has been developed as a consequence of factors embedded in local circumstances and a history of trust and cooperative activity amongst the member institutions. It is not intended as a blueprint for other locations, because circumstances vary and features of this model may not be readily replicable.

A cautionary tale

> While closer interaction between the university and VET sectors should be encouraged, this should not be perceived as being best achieved through proliferation of multi-sector institutions or universities delivering 'associate degrees' in VET[2].

The administrative structure established at the Peel Education and TAFE Campus has taken account and addressed the issue of one partner dominating the developmental processes for the campus, by establishing a range of structures and decision-making processes.

Capacity to influence

In some Australian examples of services locating at one site, ownership of the decision-making processes has come under contest when there are groups with strong partisan interests. The model at Peel is conservative in its structure. The Peel Education and TAFE Board have ownership of decisions and the process is located within a tripartite committee. The committee comprises the Challenger TAFE Managing Director, the local District Director for the WA Education Department and the academic head of Rockingham and Peel Campuses of Murdoch University.

Input from the local community and the influence or input of other government agencies can occur at the next decision-making level via the Education Development Unit. The role of this unit is to develop curricula, programs and services for the students on campus in response to locally identified needs, and the advice of state development and other specialist agencies.

> Each structure has a unique identity, a clear boundary, yet it is merged with its environment. (Wheatley 2000)

The Peel Education and TAFE Board have representation from each member agency and it directs the work of the Education Development Unit that has a brief to maximise education, training and employment outcomes for the campus students. This will be achieved by developing industry and commercial partnerships that provide the required knowledge, training and on-the-job experiences for students to ensure they are well prepared for the industry they plan to enter. These stakeholder groups will be purpose-driven and will last for the duration of the task involved. For example, each education and training pathway that is developed for students will be guided by an expert steering group that comprises community and specialist membership.

A warning from the Australian National Training Authority (ANTA) on developing a working balance for VET and university also applies to retaining the integrity of school education:

> In developing and implementing policies for a seamless system, regard has to be given to the distinctive characteristics of both VET and higher education. The distinctive outcomes each sector is providing to clients must be retained, not diminished. (Australian National Training Authority 1997)

At Peel, education and training pathways will incorporate two or more of the following options: school education, TAFE training, university studies and work experience. Other attendant services may also be developed. For example, particular kinds of cross-sector mentoring arrangements and ways of jointly developing and managing portfolio education and training are items high on the agenda of 'must do's'. As well, the Board is keen to establish an arrangement of guaranteed placements in courses on the same campus for students exiting Mandurah Senior College and wishing to undertake studies at either Challenger TAFE or Murdoch University. One feature yet to be fully understood is the extent to which students from the region are prepared to travel to gain the hands-on experience they may require for their future employment[3].

Levels of trust

Some campus arrangements that have involved a number of education and training agency groups have found that lesser partners are overwhelmed by the interests of one dominant partner. At Peel, dispute resolution has been designed to operate from the bottom upwards. Should a difficulty be unresolved along the way, then the final decision rests with the three members of the Peel Education and TAFE Board. A similar model has operated successfully at Rockingham Regional Campus, just north of Mandurah where Challenger TAFE, Murdoch University and the Rockingham City Council operate a joint library facility.

Additional funding commitments

Marketing of the Peel Education and TAFE Campus remains the responsibility of the member organisations. Joint venture activities and the financial arrangements for their marketing will be dealt with on a case-by-case basis. Similarly, any activities perceived by the Peel Education and TAFE Board to incorporate an element of risk will be addressed and underwritten on a case-by-case basis. Sources of shared recurrent funding for the collocation venture are derived solely from the recurrent funding provided to each of the three partners through their individual service level agreements.

Decisions on the management of the various aspects of the joint facility were based on track records of the member institutions. For example, TAFE was allocated responsibility for campus services based upon its prior experience and the infrastructure support available to it, and Murdoch University was given responsibility for communications services because of its superior expertise in this area.

The Peel Education and TAFE campus is in its infancy, having existed for only five months. Currently, emphasis is being placed on joint education and training policy development and the identification of desirable education and training pathways for students from each sector. There is a need for baseline data to be collected and collated on students', teachers', administrators' and parents' perceptions, preferences, desires and ambitions. This material can potentially be compared with state data and local demographic data already available in order to design best-fit outcomes for students. Currently, the Peel Education and TAFE Campus has set up high expectations in the local community; for example, 150 more students returned to school for year 11 and 12 at Mandurah Senior College than had been anticipated. This is signalling a high level of expectation in the watching community. The campus will need to quickly demonstrate superior outcomes for its students.

Notes

1. Hon Hendy Cowan, MLA Deputy Premier, Minister for Regional Development. In Preface to draft Regional Development Policy, July 1999.

2. Association of TAFE Institutes in Victoria.

3. The willingness to travel is one of a number of features of student behaviour and expectations the campus is hoping to attract funding to investigate in 2001.

References

Australian Broadcasting Commission (2000) Landline. Sunday, 12 November. http://www.abc.net.au/landline.

Australian National Training Authority (1998) Australian qualifications framework implementation handbook (second edition), p 1. www.aqf.edu.au/aboutaqf.htm.

Australian National Training Authority (1997) Australian National Training Authority response to 'Learning for life': review of higher education financing and policy. Policy discussion paper.

Challenger TAFE (2000) Final report: joint TAFE/ school development on the Peel Education and TAFE campus collocation. Chris Barnett and Associates.

Collins J C and Porras J I (1995) Built to last: successful habits of visionary companies. London: Century.

Department of Commerce and Trade (2000) Collocation of services in regional Western Australia: a key initiative of regional development policy. Implementation plan.

Doughney L (2000) Lifelong learning and student data collection in Australia. Ninth Annual Vocational Education and Training Research Conference, Coffs Harbour Education Campus, 6 July.

Ellyard, P (1998) Creating and preparing for jobs in the 21st Century. Working 2000 Conference, Fremantle, February.

Hyland T (1999) Vocational studies, lifelong learning and social values: investigating education, training and NVQs under the new deal. Aldershot, Ashgate.

Kemp D (2000) Strategic developments in higher education. In OECD Thematic Review of the First Years of Tertiary Education, Australian Seminar, Sydney, 20-21 April 1998, 2000. Occasional Papers Series (March 2000), Higher Education Division, Department of Education, Training and Youth Affairs. Canberra: Australian Government Publishing Service.

MCEETYA (1996) Report from the Taskforce on Implementation of AVTS in Schools. Revised minutes of the fifth MCEETYA Meeting, Brisbane, July.

McNulty D (2000) Adult learning Australia - learning towns and cities. http://www.ala.asn.au/pages/McNulty_talks.html (accessed 31 October 2000).

Marshall A C (1997) The development of the Rockingham Regional Campus of Western Australia: a case study in inter-sectoral collaboration. Perth: Department of Education Services.

South Metropolitan College of TAFE (1999) Building relations between TAFE and university: South Metropolitan College of TAFE and Murdoch University.

Wheatley M (2000) Leadership and the new science: learning about organisation from an orderly universe (second edition). San Francisco: Berrett-Koehler.

Contact details

Jennifer Nevard

Email: nevarj@fleetst.training.wa.gov.au

Curriculum development and discursive practices: building a training culture around dual diagnosis

Steve Goldsmith

Dual Diagnosis Resource Centre, Victoria

Dual diagnosis (comorbid substance abuse and mental disorder) is an issue currently presenting great difficulties across health and community service sectors. Between 25% and 60% of people with mental health problems experience problematic substance use at some time in their lives (Fowler et al 1998; Regier et al 1990). Dual disorders are especially common among populations in which substance abuse is high, such as prisoners, unemployed and homeless (Timms and Balázs 1997). Dual disordered clients are particularly prone to suicide, noncompliance with treatment, social alienation, and risk-taking behaviour. Attempts at 'self-medication' with alcohol or drugs to alleviate depression and anxiety are common (Addington and Duchak 1997); alternatively, substance use can itself lead to depression, anxiety, and more rarely, psychosis (Baigent et al 1995).

Overall, clinical care of clients with dual disorders is inadequate (Drake and Noordsy 1995; Sitharthan et al 1999), and costs disproportionately more than other mental health treatments (Jenner et al 1998; Jerrell et al 1994). In fact, these clients have often been excluded from treatment altogether (Kivlahan et al 1991; Ridgely et al 1990). In comparison to either disorder alone, the current impact of dual diagnosis is marked by reduced functioning, difficulties accessing treatment services, and resultant poorer treatment outcomes for each disorder. Service criteria for treatment of mental illnesses often explicitly exclude those with serious substance use disorders; the converse is true in substance abuse treatment services. The burden on carers and family of people with dual disorders, and the cost of attempting to effectively access health and social services, commonly reaches totally unacceptable proportions. People with dual disorders have been described as the 'fringe dwellers' of the mental health and substance treatment service frameworks (Mence 1997); despite their prevalence, dual disorders have yet to be acknowledged as 'core' business by any mainstream health services.

The problems outlined above have become increasingly visible and prevalent in recent years, particularly with the shift of mental health and substance abuse treatment services from institutional to community-based service models (Drake and Wallach 2000). Of particular concern has been a rise in the general availability (and, arguably the potency) of an ever-increasing variety of licit and illicit drugs, which has had especially damaging consequences for those most at risk, including the mentally ill.

Ensuring that training needs are being effectively addressed

Historically there has been a low profile accorded to substance abuse issues in education for mental health professionals. This situation does not seem to be unique to any one profession; Aanavi et al (1999) found that although 91% of psychologists they surveyed do clinical work with substance abusers, most have had no formal education (74%) or training (54%) in substance abuse issues. Similarly, deficiencies in substance abuse education have been identified in medical training curricula (Durfee et al 1994; Martin 1996). The knowledge and skills in dual diagnosis issues among staff of substance abuse treatment services is also often inadequate (Hall et al 2000; Vander Bilt et al 1997). Consequently, the knowledge and skills of workers in mental health and substance abuse settings about each other's fields of practice has been insufficient to ensure effective treatment of dual disordered clients in either setting. Of particular concern to mental health services are the enormous contributions these problems have made to current difficulties in the recruitment and retention of staff (Australian Health Ministers' Advisory Council 2000).

At present, clinical staff in mental health and drug treatment services need ongoing training and support on dual diagnosis issues. This need not be expensive, nor remote from daily work settings (Drake and Noordsy 1995; Jenner et al 1998; Siegfried et al 1999). A coordinated training program, sensitive to the diverse needs of treatment settings, and with an emphasis on clinical supervision to support practice, has great potential to resolve current difficulties.

Substantial research has been conducted at the Dandenong Psychiatry Research Centre (DPRC) into the relationship between serious mental disorder and substance abuse. This led in mid-1999 to the establishment of the Dual Diagnosis Resource Centre for the development of training materials, secondary and tertiary consultancies, and support for research activities in the area of dual diagnosis. The Centre aims to adopt a consultative, inclusive approach to addressing the concerns of all stakeholders in this area. Its key objectives are to:

- contribute to improvements in the quality of life of consumers who have dual disorders;
- improve the level of satisfaction with the service received by these consumers and their carers/relatives through Dandenong Area Mental Health Service; and
- improve the job satisfaction of clinical staff through enhanced knowledge and skills in offering treatment to dual diagnosed consumers.

The Dual Diagnosis Resource Centre's primary activities revolve around training and staff consultation about dual diagnosis issues. In general, the Centre's staff do not have a direct clinical function (ie client referrals are not taken, as would be expected if the Centre was a specialist clinical service). The central goals are to help improve the responses by existing services to dual diagnosed clients, and to advocate for enhanced access and communication between clinical and non-clinical agencies. As the Centre's coordinator, the author is active in the development of educational/support groups for consumers and carers, and of collaborative research with other services to augment the projects already in progress.

Resistance to dominant paradigms being challenged

As Van Maanen and Bailey (1984) observe, people actively produce their own meanings, at work as in other settings. Accordingly, individuals can potentially function as change agents to instigate and realise improvements in work practices (Rhodes 1997). However, the influence of management, and of the broader organisational culture, is a powerful mediating factor on change.

Riordan and Chesterton (1999) identified six 'barriers to curriculum change'. In an initiative with parallels to the current project, these barriers included:

1. Poor understanding of the innovation (p 5). Riordan and Chesterton refer to the need for a 'shared sense of the problem and the means by which it might best be addressed' (p 5). Recognition of the problem of dual diagnosis did not always translate into engagement with the *process* of change being undertaken; informal comments to the author indicated a persistent preference for being a passive recipient of a finished product.

2. Lack of commitment and readiness of staff (p 7). There was some questioning of the feasibility of clinical strategies advocated in the training curriculum, within the current systemic arrangements. Echoing Beavis (1997), a questioning of 'the readiness of staff to adjust to the different expectations and structures' (Riordan and Chesterton 1999, p 7) was also apparent in comments made during training development group sessions.

3. Tensions between intended outcomes and other expectations (p 7). A central principle of the Dual Diagnosis Resource Centre is building the capacity of existing mainstream services rather than creating a new, specialist service. In this light, it is significant that it took some time for certain individual work settings to begin to appreciate the value of the Centre's consultations, training and work on initiatives, such as development of more appropriate policies and procedures. A balance needed to be achieved between innovation and the pressures of everyday clinical work.

4. Lack of support from stakeholders (p 8). Riordan and Chesterton (1999) refer to 'perceived variance in levels of support among parents for the initiative' (p 8). As the current project was dealing with the highly controversial issue of illicit drug use, reluctance to move from familiar practices was understandable, despite broad-based support for the project from mental health consumer and carer groups, and the wider community.

5. Logistical issues (p 9). The changes to work practices advocated in the training curriculum had perceived implications for workloads, staff retention, and even service funding. Concerns from participants about performing roles they were not qualified or authorised to do subsided somewhat as the project progressed, but remain issues in need of sustained attention.

6. Absence of ongoing evaluation (p 9). As a core program of Dandenong Area Mental Health Service, the training curriculum developed by the Dual Diagnosis Resource Centre is part of an ongoing process of organisational change. Riordan and Chesterton (1999) recognise the importance of engaging with peoples' differing worldviews, and of collaborating with senior management to achieve sustainable change.

Rhodes (1997) also argues that the legitimation of organisational learning is a function of management. That is, in the context of the competing value systems within any organisation, 'events are labelled as being learning by people in whose interests it is to have events interpreted this way' (Rhodes 1997, p 11). Engagement with management is a necessary component of organisational change, through the authority vested in management to create mechanisms to allow learning to be 'embedded in the organisational culture' (Rhodes 1997, p 11).

A key principle underpinning the Australian National Training Authority's strategic direction is 'to improve industry attitudes and commitment to training, with leadership by industry being essential' (Australian National Training Authority 1998, p 17). In health care, as in other industries, the promotion of a training culture is the key to achieving improved investment in training, particularly in relation to areas as problematic as dual disorders.

The balance that needs to be maintained between an organisation's charter, and its need to adapt to changing circumstances, can seem something of a paradox. The problem of dual disorders presents mental health and drug treatment agencies with some difficult choices about the scope of their activities, and the optimum methods of identifying and responding to their target client group. Reluctance of some agencies to invest in training seems to be due to:

- lack of, or inappropriate incentives;
- a preference to recruit appropriately skilled staff from outside the organisation;
- pressures of day-to-day workloads leading to training being accorded lower priority;
- inhibiting administrative structures; and
- lack of information (Falk et al 1999, p 109).

These barriers to investment in training need to be overcome if agencies working with dual disordered clients are to move beyond current ineffective and unsustainable work practices. Further, as Seddon (1998) observes, an integral factor in building the longer-term capacity of organisations to respond to change is research that builds on notions of 'learning organisations' (Welton 1991) as reflected in recent Australian policy debate (Crowley 1997; West 1998). This debate has recognised the need to move beyond competencies towards a focus on 'lifelong learning' (Robinson and Arthy 1999). Such a focus is essential if health care organisations are to effectively address the heterogenous and changing needs of clients with dual disorders.

Engaging clinical staff of mental health and drug treatment services

Hayton et al (1996) examined factors that affect the level of an industry's investment in training. These include:

- well-defined strategic links between training and an organisation's business strategy;
- a focus on and receptiveness to workplace innovation;
- a participatory and stable industrial relations climate, founded on concern for the development of individual employees that generates trust between management and staff;
- management commitment to the importance of training to the long-term success of the organisation; and

- integration of training activities with the organisation's overall history and culture.

The Dual Diagnosis Resource Centre recognises the international trend toward integration of services to more effectively meet the complex needs of people with dual disorders. The Centre has adopted a strategy of building the capabilities of existing mainstream services through consultations, training, and support for research to induce long-term, adaptive organisational change.

Over a period of three months in late 1999 and early 2000, a comprehensive process of consultation about dual diagnosis was undertaken by the Dual Diagnosis Resource Centre with clinical and community service agencies, primarily in the Greater Dandenong region, but extending across Melbourne. During this consultation, a short (four question) survey was sent out, asking clinicians from Dandenong Area Mental Health Service (DAMHS) and Westernport Drug and Alcohol Service (WDAS) to anonymously self-report their knowledge, skills, optimism and confidence about dual diagnosis issues, and to express their interest in discussing the topic further.

The research project

A research project was devised as part of the author's studies toward a Masters degree in Professional Education and Training, to evaluate the curriculum development process undertaken with staff at a mental health service and at a neighbouring drug treatment service. A training curriculum was developed that challenged the dominant discourses in respective work settings and encouraged change to familiar work practices.

The primary expectation for this research project was that knowledge about dual diagnosis could be improved by training. A secondary expectation was that the knowledge of training participants would improve to a greater degree over the period of the study than those of colleagues who did not participate in training. The research project was an experimental intervention study, which sought to generate an objective, quantifiable measurement of knowledge about dual diagnosis before and after the development of a training program on the topic. The magnitude of score difference between aggregated pre- and post-evaluation scores was expected to be greater within the experimental group than the comparison group.

Those who expressed interest were invited to participate in a training development group. These volunteers constituted the experimental group for an evaluation of the training curriculum development process. A comparison group was comprised of the remainder of staff from the mental health and substance treatment services, selected with reference to the human resource database of each service. The training development group met monthly, and were given presentations of the evolving training curriculum in an interactive format that allowed and encouraged feedback.

There are differing, and at times conflicting, language and agendas among both clinical and non-clinical services concerned with dual diagnosis issues. Accordingly, development and delivery of the dual diagnosis training curriculum involved collaboration between mental health, substance treatment and psychiatric disability support services, underpinned by broad consultation with community service sectors.

Questionnaire development

Before commencement of the training development, both the experimental group and the comparison group were administered an anonymous questionnaire designed to give an objective measurement of knowledge about dual diagnosis. After completion of the training development program, a second questionnaire, identical in content to the first, was used to evaluate changes in knowledge among both the experimental and the active comparison group.

The questionnaire comprised sections dealing with mental illness, substance abuse and dual diagnosis issues. Many of the questions were open to debate; in human service fields such as mental health and drug treatment, it is often difficult to reach universal agreement. Questionnaire items were chosen because of the strength of the evidence supporting what was identified as the 'correct' response, rather than aiming for a unified view. It was considered just as important for the questions to be put 'on the agenda' for debate within the services.

A total of 186 questionnaires were sent out for the first sample. There were 87 respondents; a response rate of 47%. 67.8% of respondents were female, reflecting the high proportion of females employed in both mental health and substance abuse treatment services. A majority of respondents (68.9%) were aged between 25 and 45, and primarily belonged to the nursing profession (65.5%). 49% of respondents reported having between 2 and 10 years experience in their chosen field, with a further 34.5% having more than 15 years experience.

The relative sizes of the mental health and substance abuse treatment services from which the sample was drawn was reflected in 79% of respondents identifying mental health as their work setting; this was consistent with the proportion of staff from each service in the original mailout.

Most respondents (64.4%) reported daily contact with dual disordered clients. Given this, their lack of relevant professional development was striking. Between 36% (mental health inservice) to 91% (alcohol and drug post-graduate tertiary qualification) reported no exposure at all to professional development activities, whether by formal education or workplace training to inform their work with this client population. The need for the current project was confirmed.

Results: pre-intervention

Mean scores for the total questionnaire seemed to be unaffected to a significant extent by any one respondent variable. Scores for medical and psychology staff were noticeably higher than those of other professions, but there were insufficient respondents from these two professions (3 and 6 respectively) to draw reliable conclusions.

Examination of mean scores from each section of the questionnaire also revealed little conclusive effects from particular respondent variables. Despite the appearance of marked differences between categories of particular respondent variables

(Profession and Age), the small sample sizes in these categories made further analysis irrelevant. The only significant effects found were in relation to the variable Work Setting, as presented in Table 1. These were in the expected direction; staff from mental health services scored better on questions about mental illnesses than staff from substance abuse treatment services. However, whenever substance abuse was a factor, as in the sections on substance abuse and dual diagnosis, staff from substance abuse treatment services recorded the better scores. These differences negated each other to some extent when the scores from each section were combined.

Results: post-intervention

Comparison of mean scores before and after the training development group (see Table 2) revealed a significant improvement after the intervention in scores recorded for the mental illness section of the questionnaire ($p = 0.003$) and for the overall score ($p = 0.022$). Small but insignificant improvements were found in the substance abuse and dual diagnosis sections.

Table 1: Mean scores by work setting

Section	Work setting	N	Mean	Significance (p)
Mental illness	Mental health	69	12.2609	
	Substance treatment	18	9.9444	**
Substance abuse	Mental health	69	11.3043	
	Substance treatment	18	14.2778	***
Dual diagnosis	Mental health	69	6.2319	
	Substance treatment	18	7.8889	**
Total	Mental health	69	29.7971	
	Substance treatment	18	32.1111	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The comparison group, which was not exposed to the intervention of the training development, showed no significant improvements in any section, and a slight, although insignificant deterioration in score for the dual diagnosis section (see Table 3).

Table 2: Comparison of pre- and post-intervention scores – experimental group

Group Statistics

	PREPOST	N	Mean	Std. Deviation	Std. Error Mean
Mental Illness	1.00	7	11.4286	1.3973	.5281
	2.00	7	14.1429	1.3452	.5084
Substance abuse	1.00	7	11.1429	2.5448	.9619
	2.00	7	12.8571	1.4639	.5533
Dual Diagnosis	1.00	7	6.7143	1.7995	.6801
	2.00	7	6.8571	2.6095	.9863
Total	1.00	7	29.2857	2.9841	1.1279
	2.00	7	33.8571	3.4847	1.3171

Table 3: Comparison of pre- and post-intervention scores – comparison group

Group Statistics

	PREPOST	N	Mean	Std. Deviation	Std. Error Mean
Mental Illness	1.00	23	12.0435	2.7383	.5710
	2.00	23	12.7391	2.4720	.5154
Substance abuse	1.00	23	12.3478	2.8060	.5851
	2.00	23	12.4348	2.2121	.4612
Dual Diagnosis	1.00	23	6.6957	2.2040	.4596
	2.00	23	6.6522	2.9941	.6243
Total	1.00	23	31.0870	5.2822	1.1014
	2.00	23	31.8261	5.7497	1.1989

Reframing familiar knowledge – discursive practices as barriers to the development of a training culture

The influence of discursive practices on staff expectations, understandings and assumptions about their field of practice has profound implications for the way that they respond to change. The new curriculum developed around dual diagnosis involves, for many staff, a challenging of long-held values about the nature of mental illness and drug use, and requires - as Beavis (1997) observes - a reconstruction of work practice. This process can represent a threat to the established pleasures and satisfactions of familiar work practices, despite widespread acknowledgment of a need for change.

The biomedical model of mental disorder, adhered to by psychiatry, has been entrenched as the dominant order of discourse in mental health since the 1980s. Ongoing debates and struggles for ascendancy have occurred for most of the twentieth century between the 'neo-Kraeplinian' branch of psychiatry (named after an early psychiatrist), other psychiatrists and medical professionals, and other mental health professionals, notably psychologists. Neo-Kraeplinian dominance of contemporary psychiatry rests on the assertions that:

1. psychiatry is a branch of medicine and should base its practice on scientific knowledge;
2. psychiatry treats people who are sick, and there is a boundary between the normal and the sick;
3. mental illnesses are like physical illnesses, discrete entities with a biologic component; and
4. diagnosis and classification are legitimate areas of research and diagnostic criteria should be valued and taught. (McCarthy and Gerring 1994, p 158)

An interesting aspect of McCarthy and Gerring's (1994) discussion is their review of neo-Kraeplinian reshaping of the 'intertextual web in the mental health field ... [reconstructing] ... the consensual knowledge and research agenda of the field' (p 159). They refer to Blashfield's (1984) study into the social and political forces behind the DSM, which included a

> citation analysis of an article – Feighner *et al*, 1972 – published in the prestigious *Archives of General Psychiatry*. This article defined criteria for 16 mental disorders and was coauthored by six neo-Kraeplinians at Washington University in St. Louis. Whereas a typical publication in the *Archives* is cited, on average, two or three times a year, Blashfield (1984, p. 39) finds that the Feighner paper was cited approximately 1,650 times in the 10 years following its publication. (McCarthy and Gerring 1994, p 159)

Blashfield concluded that the citations proliferated 'exponentially', largely through extensive cross-citation by co-authors, and associates of the co-authors of the Feighner et al (1972) paper in subsequent publications. By the early 1980s

> (t)he sheer number of pieces sharing the neo-Kraeplinian orientation forced mental health researchers to acknowledge the importance of the biomedical model. (McCarthy and Gerring 1994, p 160)

There is by no means universal agreement on the veracity of the biomedical paradigm of mental health. Snook (1980), in summarising the discourses of the mental health movement as embodied in World Health Organisation documents, takes a sociological stance, identifying, for example, 'a move from the judicial to the therapeutic model' (p 39) of deviance. Snook highlights the 'cultural relativism in ascribing illness ... to particular persons' (p 40), asserting that

> some psychiatric diagnoses constitute a re-description of moral categories: [for example] the drunkard becomes an alcoholic to be treated not punished. (Snook 1980, p 45)

A shift away from judicial models of discourse is also evident in drug treatment services. However, the dominance of the biomedical paradigm seen in mental health is nowhere near as strong; discourses of drug treatment are primarily centred on harm minimisation.

The example given by Snook (1980) of the recategorisation of the 'drunkard' provides a historical summary of the two moral discourses of drug use that were dominant for most of the twentieth century (O'Malley 1999). Discourses of addiction held that users were compelled by forces beyond their own will, and gave rise to concepts such as an 'addictive personality' and the 'demon drink'. Discourses of abuse, on the other hand, conceptualised drug users as wilfully deviant and requiring punitive sanction. Both addicts and abusers needed assistance to recover from their condition, which was seen as arising from either moral or medical pathology. Indeed Kohn (1997) summarises the 'core drug morality formula' as one of 'instant addiction, leading through inevitable decline and degradation to death' (p 140).

In contrast to the above, harm minimisation, which is the current ascendant paradigm of drug policy, takes as its starting point an acknowledgement of drug consumption as a 'normal' activity in modern society (O'Malley 1999). Harm minimisation identifies a spectrum of conditions and forms of use, from informed, controlled and responsible, to excessive, harmful, inappropriate and dependent. The legal status of particular drugs (for example, nicotine, alcohol, cannabis and heroin) is of secondary importance to the risks of health, social or economic harm arising from the drug use. These risks are determined by the interactions between the physical, social and economic characteristics of the drug user and her/his environment, and the properties of the drug (Directorate of School Education, Victoria 1995).

However, harm minimisation means different things to different people. The tension underlying much of the drugs debate is, at least in part, due to the diverse range of views being expressed about drug use; illegal drugs in particular are 'powerful symbols ... of fears about threats to a society unsure of its future direction' (Kohn 1997, p 142). Models of drug governance focus on proscribing appropriate degrees of free will. These range from:

- the use of specific sanctions in response to excessive use (as in drink driving while on a probationary licence); and
- the reintroduction of prohibitive measures for inappropriate use in specific contexts that directly exposes others to risk (seen in the blanket application of the 0.05 blood alcohol level for drivers); to
- the retention of punitive responses to unauthorised distribution or 'trafficking' of illegal drugs (O'Malley 1999, p 201).

An indication of the persistence of deviance models of drug abuse calling for punitive sanctions is the statement by the Australasian Centre for Policing Research (2000), that

> the prevention of alcohol and other drug use ... [seems] ... to have far more in common with the prevention of crime than with the provision of drug treatment. (Australasian Centre for Policing Research 2000, p 10)

This is of course not a surprising position for law enforcement agencies to take. Debate over the scope of harm minimisation, and the persistence of competing paradigms of drug use, are indicative of the controversial nature of the drugs problem. As Jagger (1997) posits in her examination of the development of government policy on 'glue sniffing'

> only those expert discourses (or aspects of these) which are compatible with government's existing political programme ... will be taken up and used in the formulation of policy. (Jagger 1997, p 446)

The willingness of group participants to engage even partially in the curriculum development process indicated a preparedness to extend their knowledge beyond the expectations, understandings and assumptions inherited from their workplaces (Beavis 1997).

Wider influences

The intervention of the training development saw some improvement in group participants' questionnaire scores, as expected in the project design. The dominant discourses in each work setting seemed to have a significant impact on scores of staff from each service. However, as the intervention was centred on a process of training curriculum development, rather than the actual delivery of a training program, it is useful to consider possible reasons for the extent of this effect.

A large part of the impetus for establishment of the Dual Diagnosis Resource Centre was a growing recognition by staff of Dandenong Area Mental Health Service of the extent of the drug abuse problem among clients, and the attendant difficulties providing effective treatment to this population. From its inception, the Centre has had to be active in addressing these difficulties; as the Centre's work became more established and recognised, it became increasingly unrealistic to limit interventions to the training development group. Besides the activities of this group, other work by and emanating from the Centre influenced staff knowledge of dual diagnosis issues. These included:

- Inquiries made to the Centre by staff in relation to the treatment of specific clients. These secondary consultations were often in the context of team meetings at particular work settings, and sought to facilitate information sharing among clinical staff.

- Resources provided by the Centre as part of its function within the service. These include books, videos and government reports that are freely available as references to service staff; pamphlets are also available from the Australian Drug Foundation and other sources. Information from these resources became widely disseminated throughout the service.

- Informal discussions and debates among service staff about dual disorders. These often included contributions by the author, and increasingly incorporated reference to the consultations made and resources provided by the Centre.

Curriculum development and discursive practices

There is an explicit focus in the training curriculum on the fundamental principles, knowledge and skills underpinning each of the three sectors involved in the curriculum development. However, there seemed in the training development group to be an at times marked reluctance to give feedback on draft curriculum content about familiar topics. Feedback was most forthcoming when the group was presented with a virtual finished product, or when the content was previously unfamiliar to individual participants. Participants from both work settings seemed equally difficult to engage in curriculum development about topics they were already familiar with; it is possible that participants may have viewed already familiar content as less valuable inclusions in the curriculum. When considering reasons for this difficulty of engagement, it is useful to recall the discursive practices operating within the group, as outlined earlier. A clarification of the term 'curriculum' is needed; the definition offered by Cherryholmes (1987) seems appropriate in this context:

> What students have an opportunity to learn [along with] a study of what is valued and given priority and what is devalued and excluded. (p 297)

Whether group participants were operating within orders of discourse grounded in the harm minimisation approaches of drug treatment, or the more biomedically oriented paradigms of mental health services, group participants seemed more responsive to new ways of approaching issues around dual disorders than they were to familiar methods. This would explain the project's success in improving group participants' questionnaire scores, and may be an encouraging indication of participants' willingness to adapt to new ideas and work practices.

Conclusion

Professional education and training are necessary but not sufficient components of improving organisational effectiveness. Through building on an organisation's strategic direction, and making provision for individual contributions to curriculum and policy development, professional education and training can become embedded as core elements of organisational culture.

The dominant discourses in respective work settings were borne out in questionnaire results, affirming the need for training curricula that challenge and encourage change to familiar work practices. The project has also demonstrated the value of working collaboratively with staff and management when developing new training curricula. Cultural aspects of individual and organisational learning need to be acknowledged and incorporated into the design of curriculum development processes, to narrow the gap between the theoretical realm of training and the reality of clinical practice, and to align training curriculum development with the broader context of organisational life.

There is a strong trend in the literature toward integration of services to more effectively meet the complex needs of people with dual disorders. The process of developing a training curriculum in collaboration with the major service sectors involved, and after consultation with a wide range of key stakeholders, has produced a training curriculum that affirms this trend. The Dual Diagnosis Resource Centre has adopted a consultative, inclusive approach to addressing the needs of all relevant stakeholders. The Centre's strategy of building the capabilities of existing mainstream services through consultations, training and support for research has the potential to induce long-term, adaptive organisational change.

References

Aanavi M P, Taube D O, Ja D Y and Duran E F (1999) The status of psychologists' training about and treatment of substance-abusing clients. Journal of Psychoactive Drugs, vol 31, no 4, pp 441-444.

Addington J and Duchak V (1997) Reasons for substance use in schizophrenia. Acta Psychiatrica Scandinavica, vol 96, pp 329-333.

Australasian Centre for Policing Research (2000) The impact of the national focus on harm minimisation on the uptake of illicit drugs in Australia: a discussion paper for the Drug Policy Subcommittee of the Conference of Commissioners of Australasia and the South West Pacific Region, Australasian Centre for Policing Research, Canberra.

Australian National Training Authority (1998) A Bridge to the Future: Australia's national strategy for vocational education and training 1998-2003. Brisbane: Australian National Training Authority.

Australian Health Ministers' Advisory Council (2000) Rethinking nursing. Proceedings of the national nursing workforce forum, Canberra, 21-22 September 1999. Canberra: Ausinfo.

Baigent M, Holme G and Hafner J (1995) Self reports of the interaction between substance abuse and schizophrenia. Australian and New Zealand Journal of Psychiatry, vol 29, pp 69-74.

Beavis C (1997) 'Lovely literature': teacher subjectivity and curriculum change. Paper presented at Researching Education in New Times - Annual Conference of the Australian Association for Research in Education, Brisbane, 30 November - 4 December.

Crowley R (1997) Beyond Cinderella: towards a learning society. A report of the Senate Employment, Education and Training Committee. Canberra: Australian Government Publishing Service.

Directorate of School Education, Victoria (1995) Get real. A harm minimisation approach to drug education. Melbourne: Directorate of School Education, Victoria.

Drake R E and Noordsy D L (1995) The role of inpatient care for patients with co-occurring severe mental disorder and substance use disorder. Community Mental Health Journal, vol 31, no 3, pp 279-282.

Drake R E and Wallach M A (2000) Dual diagnosis: 15 years of progress. Psychiatric Services, vol 51, no 9, pp 1126-1129.

Durfee M F, Warren D G and Sdao-Jarvie K (1994) A model for answering the substance abuse educational needs of health professionals: the North Carolina governor's institute on alcohol and substance abuse. Alcohol, vol 11, no 6, pp 483-487.

Falk I, Sefton R and Billett S (1999) What does research tell us about developing a training culture? In C Robinson and K Arthy (eds) Lifelong learning - developing a training culture. Papers presented at Creating our future: a new training culture for Australia - the Australian National Training Authority Conference, Brisbane, August 1998.

Fowler I L, Carr V J, Carter N T and Lewin T J (1998) Patterns of current and lifetime substance use in schizophrenia. Schizophrenia Bulletin, vol 24, no 3, pp 443-455.

Hall M N, Amodèo M, Shaffer H J and Vander Bilt J (2000) Social workers employed in substance abuse treatment agencies: a training needs assessment. Social Work, vol 45, no 2, pp 141-155.

Hayton G, McIntyre J, Sweet R, MacDonald R, Noble C, Smith A and Roberts P (1996) Enterprise training in Australia. Melbourne: Office of Training and Further Education.

Jagger E (1997) The production of official discourse on 'glue sniffing'. Journal of Social Policy, vol 26, no 4, pp 445-465.

Jenner L, Kavanagh D, Greenaway L and Saunders J B (1998) Dual Diagnosis Consortium: 1998 Report. Brisbane: Dual Diagnosis Consortium.

Jerrell J M, Hu T and Ridgely M S (1994) Cost-effectiveness of substance disorder interventions for people with severe mental illness. Journal of Mental Health Administration, vol 21, no 3, pp 283-297.

Kivlahan D R, Heiman J R, Wright R C, Mundt J W and Shupe J A (1991) Treatment cost and rehospitalization rate in schizophrenic outpatients with a history of substance abuse. Hospital and Community Psychiatry, vol 42, no 6, pp 609-614.

Kohn M (1997) The chemical generation and its ancestors: dance crazes and drug panics across eight decades. The International Journal of Drug Policy, vol 8, no 3, pp 137-142.

Martin E (1996) Training in substance abuse is lacking for GP's (letter). British Medical Journal, vol 312, pp 186-187.

McCarthy L P and Gerring J P (1994) Revising psychiatry's charter document DSM-IV. Written Communication, vol 11, no 2, pp 147-192.

Mence W (1997) From dual diagnosis to fringe-dwelling. Deakin Addiction Policy Research Annual, vol 4, pp 39–49.

O'Malley P (1999) Consuming risks: harm minimisation and the government of "drug-users". In R Smandych (ed) Governable places: readings on governmentality and crime control. Dartmouth: Aldershot.

Regier D A, Farmer M E, Rae D S, Locke B Z, Keith S J, Judd L L and Goodwin F K (1990) Comorbidity of mental disorders with alcohol and other drug abuse: results from the Epidemiological Catchment Area (ECA) study. Journal of the American Medical Association, vol 264, pp 2511-2518.

Rhodes C (1997) The legitimation of learning in organizational change. Journal of Organizational Change, vol 10, no 1, pp 10-20.

Ridgely M S, Goldman H H and Willenbring M (1990) Barriers to the care of persons with dual diagnoses: organizational and financing issues. Schizophrenia Bulletin, vol 16, no 1, pp 123-132.

Riordan G and Chesterton P (1999) Leadership for pedagogical change: a case study of a change initiative in a 'successful' high school. Change: Transformations in Education, vol 2, no 2, pp 1-16.

Robinson C and Arthy K (eds) (1999) Lifelong learning - developing a training culture. Paper presented at Creating our future: a new training culture for Australia - Conference, August 1998. Brisbane: Australian National Training Authority.

Seddon T (1998) Emerging patterns of enterprise-based research and articulations with organisational development in vocational education and training providers. Paper presented at the first AVETRA conference, Sydney, February.

Siegfried N, Ferguson J, Cleary M, Walter G and Ray J M (1999) Experience, knowledge and attitudes of mental health staff regarding patients' problematic drug and alcohol use. Australian and New Zealand Journal of Psychiatry, vol 33, pp 267-273.

Sitharthan T, Singh S, Kranitis P, Currie J, Freeman P, Murugesan G and Ludowici J (1999) Integrated drug and alcohol intervention: development of an opportunistic intervention program to reduce alcohol and other substance use among psychiatric patients. Australian and New Zealand Journal of Psychiatry, vol 33, pp 676-683.

Snook I A (1980) Mental health and moral values: myths and realities. Discourse, vol 1, no 1, pp 39-48.

Timms P and Balázs J (1997) ABC of mental health: mental health on the margins. British Medical Journal, vol 315, pp 536-539.

Vander Bilt J, Hall M N, Shaffer H J and Higgins-Biddle J C (1997) Assessing substance abuse treatment provider training needs: screening skills. Journal of Substance Abuse Treatment, vol 14, no 2, pp 163-171.

Van Maanen J and Bailey S R (1984) Occupational communities: culture and control in organizations. Research in Organizational Behavior, vol 6, pp 287-365.

Welton M (1991) Toward development work: the workplace as a learning environment. Geelong: Deakin University Press.

West R (1998) Learning for life. Final report: Review of higher education financing and policy, Higher Education Financing and Policy Review Committee. Canberra: Australian Government Publishing Service.

Contact details

Steve Goldsmith
Coordinator, Dual Diagnosis Resource Centre
Dandenong Area Mental Health Service
PO Box 956, Dandenong
Victoria 3175
Ph: +61 3 9554 1847
Fax:+61 3 9554 1860
Email: s.goldsmith@southernhealth.org.au

Barriers to learners' successful completion of VET flexible delivery programs

Lauri Grace

Deakin University, Victoria

In the early 1990s, Australian government policy made an explicit shift towards promoting increased flexible delivery in vocational education and training (VET) as an integral part of the National Training Reform Agenda (Flexible Delivery Working Party 1992, p 9). Since then, government policy has increasingly encouraged training organisations in the VET sector to adopt flexible delivery approaches. Other stakeholders in the VET sector, such as employers and Industry Training Advisory Boards, have also embraced flexible delivery (Evans and Smith 1999).

Amongst the official enthusiasm for the increased use of flexible delivery, some researchers sounded a note of caution. Misko (1994, p 12) challenged some of the assumptions made about flexible delivery, and expressed concern about moving too quickly to a system that placed increased responsibility onto learners who may not be ready for it. Warner et al (1998, pp 4-8) reported that over 70% of learners in the Australian VET sector lacked the learning capabilities required by flexible delivery. Smith (2000, p 43) tested the learning preferences of 1,252 VET learners and concluded that:

> ... VET learners are not typically well-equipped for flexible delivery. They exhibit a low preference for self-directed learning, and a low preference for learning that does not include experience with the equipment, tools or processes to be used in the task being learned.

Boote (1998, p 81) reported doubts about whether self-direction and metacognitive skills were being promoted in VET programs, stating instead that:

> ... there appears to be some degree of assumption that both self-direction and metacognitive skills are already existing characteristics of adult VET learners, or that these outcomes will happen as part of existing VET provision.

Cornford (2000) argued that many TAFE students lacked the learning skills required to deal with tightly focused modular courses and pressures to complete in a limited timeframe. But he also raised questions about the capacity of the VET sector to address this need. Cognitive and metacognitive skills need to be developed over a period of time, and many VET courses are short term. Cornford also argued that many practitioners in the VET sector did not have sufficient understanding of cognitive and metacognitive skills to be able to teach these skills effectively.

Misko (1994) identified a need for Australian research into learning outcomes for various modes of delivery. A research project conducted by the National Centre for Vocational Education Research (Misko 1999; Misko 2000) compared student outcomes by delivery mode for all modules undertaken by VET students in 1997. The study reported that students studying by *external/correspondence* and *self-paced* *unscheduled* delivery modes had higher non-completion rates and lower pass rates than students studying by other delivery strategies (Misko 1999).

The qualitative data reported in this study was drawn from a survey of students who had successfully completed their studies (Misko 1999; Misko 2000). Misko noted 'Although this data can provide us with some good information … it does not provide the whole picture' (1999, p 13). Similarly, the students who participated in the qualitative component of the study reported by Warner et al (1998) were those who were enrolled in VET courses, or had completed their studies. There are real practical difficulties in obtaining information from former students who have failed or withdrawn from their studies. One of the respondents in the study by Warner et al (1998, p 51) commented:

> … one of the major issues is level of drop-out and you can only ask the people who complete the course, you can't ask the drop-outs. Very very few studies, none to my knowledge, actually do follow-ups on people who don't complete.

Possible explanations for high attrition and failure rates may be found in the wide body of literature addressing flexible delivery and open and distance education in Australia and overseas. This literature has identified many specific factors that contribute to the success or otherwise of adult learners, particularly those participating in flexible delivery. Some of these factors include:

- The student's readiness for self-directed learning (Boote 1998; Calder and McCollum 1998; Cornford 2000; Misko 1994; Smith 2000; Warner et al 1998).

- Their ability to balance the time demands of study with other commitments such as family and work (Evans 1994; McAlister 1998; Thorpe 1987; Toussaint 1990).

- Whether the student has the literacy levels required to succeed in resource-based learning (Misko 1994). In some cases, the issue may not be one of literacy as much as familiarity with the language used within their field of study (Northedge 1987).

- The student's ability to understand and deal with assessment requirements (Cheung 1998; Grugeon 1987; McAlister 1998; Northedge 1987).

- The student's level of motivation (Misko 1994; Toussaint 1990), which is especially important to the success of those studying voluntarily (Thorpe 1987).

- In some cases, an adult learner's previous educational experiences can influence whether he/she succeeds when returning to education in later years (Evans 1994; Thorpe 1987).

Overall, there seems to be wide agreement that in most cases success is not determined by a single factor, but by the 'complex interplay of the issues involved in (a) student's decision to withdraw' (McAlister 1998, p 287). Participation in education as an adult involves both positive and negative aspects (Evans 1994; Northedge 1987;

Woodley 1987). Decisions to withdraw are made when the sum of the negative aspects of the educational experience outweigh the sum of the positive aspects (Woodley 1987).

As a practitioner in the VET sector, I hear the stories that my students tell about their experiences with flexible delivery. I believe that there is much in these stories that can help us understand the phenomenon of low pass rates and high attrition rates in some modes of educational delivery. But when I read the literature available to me, the voices of these students do not come through and their stories do not appear.

When I read, for example, that a sample of 28,840 module enrolments in computing courses by *external/correspondence* delivery mode achieved a module pass rate of only 44.2% (Misko 2000, pp 4-6), I acknowledge that I am interested in the students who passed and how they achieved it - but what I *really* want to know is what happened to the students represented by the remaining figure of 55.8%.

Method

What kind of research is needed? Woodley (1987, pp 66-67) argued that:

> If we are to arrive at a more complete understanding of why an individual drops out, it seems that we must move beyond the usual 'check list' approach. We must take into account what participation means to an individual and the total context in which he or she is studying. We must treat dropping out as a complex process in that it generally involves numerous inter-connected causal factors and often builds up over time.

Such understanding and awareness can be provided through case study methodology:

> A case study design is employed to gain an in-depth understanding of the situation and meaning for those involved (Merriam 1998, p 19).

McAlister (1998, p 287) has used case study methodology to provide:

> ... an account of both personal experience of distance study and a decision-making process about drop-out that is rarely accessible in larger quantitative studies.

Evans (1994, p 16) stated that students' stories can provide 'an insight into the main aspects of students' contexts which are often invisible to open and distance educators'.

This was the rationale underpinning my research project. I interviewed six adults who enrolled in flexible delivery VET courses but who did not achieve a successful outcome at their first attempt. The intention was not to conduct extensive research that would support broad generalisations about students who do not succeed in this mode of delivery. Rather, the intention was to study the complexity of each individual case, working towards an understanding of the diverse range of factors that together contributed to each of these students not successfully completing their course. This paper presents two case studies, based on the actual experiences of students who participated in my research.

Keryn's story

Keryn returned to study because she felt that her employer had begun to value qualifications more highly than practical experience.

> I wanted to get some qualifications to put myself back up in the league.

Flexible delivery enabled her to fit study around her work and family obligations:

> There's no other option when I have three kids and work night shift – short of putting the kids into day care, and I didn't want to do that. Flexible delivery was brilliant ... I could work out when I wanted to do it.

She liked the idea of being able to study at her own pace and at times convenient to her.

> I've developed very good time management skills, that's why I started the study in the first place. ... I could see the time frames. I knew that I'd have a couple of hours a week to apply to study

Keryn initially enrolled in two units. She particularly enjoyed these units, as the content was new and relevant and she found the assessment tasks meaningful.

> The first two units were exactly it. The units were so relevant to the issues at work. ... I had lots of examples to use from my workplace, and I was able to use my workplace as a case study for my assignment. I was also able to take what I learned in the course back to work and put in ideas and suggestions.

Shortly after Keryn enrolled, her mother was diagnosed with a terminal illness. In addition to her other responsibilities, Keryn provided care for her mother in the final months of life. Despite all that she had to cope with, Keryn successfully completed the first two units of her course. She enrolled in a further three units, but did not find these as enjoyable as the first two. The units she was now studying:

> ... seemed to go over things I'm already doing every day. I understand why those things are in the course. ... But the frustrating thing was that I'd already done a lot of this stuff. I'd been working with it and training other staff on the job for 10 years, so the enthusiasm wasn't over zealous.

Lack of interest in the course content was not the only issue for Keryn. She also experienced difficulty understanding assignment instructions.

> The instructions in some units were very vague, and it was difficult to be sure how much to write into it and how involved to get.

Cheung (1998) argued that students may not be motivated to complete assignment work if there is a feeling that it is not contributing to their understanding of the subject. Keryn was caught in a dilemma. She was confident of her ability to demonstrate competence, so she did not want to submit work that she felt was below standard. But she wasn't sure she had understood the assignment instructions. In the end, she completed most of the assignment tasks but did not submit her work for assessment. She was concerned that getting a 'fail' result would be a 'black mark' on her student record.

Keryn's extensive work experience would appear to make her a good candidate for Recognition of Prior Learning (RPL). Despite her skills and experience, Keryn did not apply for RPL for any of the units she was enrolled in:

> I would consider it, but you have to pay to apply for RPL for each unit, and there's something like 30 units. You have to pay about $65 or something per unit to apply for RPL – if you're applying for about a third of the units, that's a lot of money ... The cost to apply for RPL is more than the cost of doing the subject.

The RPL information booklet provided by Keryn's college suggests that her understanding of the fee structure was not correct. This is a key issue in Keryn's story, and a significant point for VET organisations offering courses through flexible delivery. It is not enough for training organisations to simply have RPL available. They also need to have strategies in place that make it accessible to students on a practical level, and this may be particularly important in flexible delivery. A student's level of motivation can be a significant factor in determining success (Misko 1994; Woodley 1987). That motivation can be supported by making the course content interesting (Woodley 1987) and by showing the student that they are making progress (Calder and McCollum 1998; Grugeon 1987). When students have extensive industry experience and can demonstrate the required competence, RPL can help maintain their interest by offering an alternative to studying material that is already known. It can also help them make progress by giving credit for existing skills.

Keryn's enthusiasm for the course was already declining. When her young daughter was diagnosed with a serious medical condition, Keryn reviewed her commitments and decided that she did not have the time to continue with her study. Rather than risk failing, Keryn withdrew from the three units she was enrolled in.

> We got a few extra things thrown into life. ... I just had to look at it and say that I can't quite do all this, what can we cut out of the picture?

Keryn valued education and enjoyed flexible delivery, yet she withdrew from a course that was apparently at a level that should have been well within her ability. Evans (1994, p 28) argued that:

> ... learners can be remarkably resilient about their pursuit of education ... (but)... they are not very resilient about education that they don't like.

On a positive note, Keryn described flexible delivery as 'brilliant'. She indicated that when her other time demands had settled down and she returned to study, she would again choose flexible delivery mode, but she also appeared to be developing a more strategic approach. She was able to confidently articulate what she would do differently next time.

> I'd get more information about the specific units. And then I'd go to RPL and see what I could cross off the list – then look at what's left.

Craig's Story

At 22 years of age Craig found himself working in two 'dead-end' jobs, so he decided to study towards what he described as a 'real' career in the primary industry sector.

Craig saw a newspaper advertisement for a TAFE course that looked relevant to his interests, and he contacted the course facilitator.

> (The facilitator) made flexible delivery sound enticing – I could do study in my own time. So I joined.

Craig wasn't sure what he was expecting flexible delivery to be like:

> I hated High School – detested it. You force yourself to study. I thought that if it was something you wanted to do, it would be different.

An initial misunderstanding saw Craig enrol in the equivalent of full-time study, attempting fourteen units in addition to his two jobs. This had a negative impact on his motivation to study.

> I worked out that I'd have to do an assignment every couple of days ... I was thinking 'I'm not ever going to get this finished, so what's the point in starting it?'

While participating in a series of on-campus study skills workshops, Craig realised that he was the only student attempting this workload. He spoke to the facilitator, and his workload was substantially reduced, but he still found it difficult to settle into an effective study pattern.

> I just didn't like study. I found every type of excuse to not study.

At the study skills workshop Craig completed a learning styles activity.

> It came out strongly in my learning style: I'm hands-on. I prefer to get out and do stuff, not sit in a classroom and read.

The content of Craig's course related to practical skills, but the delivery mode relied heavily on learning by reading. Research findings (Misko 1994; Smith 2000) have suggested that reading is not the preferred mode of instruction for many Australian VET students, and have questioned the capacity of flexible delivery to respond to the needs of individual learners if the delivery strategy relies heavily on text-based materials. In telling his story, Craig repeatedly talked about the difficulties he experienced.

> I'm a hands-on person, but the subject I'm studying doesn't allow for it ... Even though I'm a hands-on person, there is no give and take in how I learn, because it's all in a book.

The learning materials did in fact incorporate practical activities in the form of suggested excursions and site visits. Craig was unable to benefit from these activities because his learning materials were imported from another state. The recommended sites were not accessible, and Craig's college did not suggest alternative local sites.

Evans (1994) has argued that open and distance education can be structured in a way that gives students control over decisions about when and where to study, but leaves them with 'little option but to adhere to the curriculum ... and its required learning styles' (Evans 1994, p 68). This appears to be the situation in which Craig found himself.

> I got the impression that flexible learning was time flexible, not the way they taught you flexible. (The facilitator) was always saying 'You can do the course in 6 months or in 10 years' – but he never talked about the way you could do it.

Misko (1994, p 42) considered the variables involved in customising instruction to accommodate individuals, and concluded that:

> The complexity of the task may in fact lead instructors and administrators to the conclusion that structuring learning activities to suit the individual learning styles of students may be more trouble than it is worth.

Craig made a similar observation, using different language.

> There are hundreds of ways that people can learn, but one college can't accommodate all of them. It's just a waste of resources.

If structuring courses so that they have the flexibility to respond to the learning styles of individual students is not always a practical option, what is the alternative? One approach is to provide students with training to help them develop the skills they need (Boote 1998; Smith 2000). The study skills workshops that Craig had attended helped students to recognise their learning preferences, but did not provide students with learning strategies.

> It was 'This is what you are, now you go and learn something from it'. There was nothing specifically for individual students on this is how you should be learning.

'Learning-to-learn' activities need to help learners develop strategies they can use to progress in their studies. Northedge (1987) proposed that students be encouraged to reflect on their own progress and their current study techniques, and explore new approaches and practices. Smith (2000, p 42) noted that:

> ... it is inevitable that a certain amount of learning materials and resources that VET learners need to engage with will be textually presented.

Smith argued that VET learners would benefit from programs that would help them develop strategies to engage effectively with text-based materials such as manuals, workplace policies and technical magazines.

In Craig's case, the study skills workshops helped him to develop a new awareness of his own preferred learning style.

> It was an eye-opener – it makes you think ... I realise that I learn better practically.

But rather than helping him develop strategies to succeed in his course, this new awareness eventually provided a justification for Craig's decision to withdraw from the course and look for something different.

> I'm just going to let it go. It isn't the style I like to learn in ... This course is just not leading me in the direction I want to go.

Comments/discussion

For both Keryn and Craig the decision to withdraw from their course was not attributable to a single factor, but was the result of several interconnected factors that built up over time. Both stories illustrate how some problems that can be quickly addressed in a face-to-face environment are much more difficult to resolve when the student is off-campus. Had Keryn been in a class complaining that she had 'already done a lot of this stuff', the result may have been some discussion of RPL or 'fast-tracked' assessment. Had Craig been handed a timetable that showed class sessions that clashed with his work hours, one would have expected him to get a fairly immediate reaction. But both students were working at home, and neither approached staff at their institution to discuss the problems they were experiencing. This is consistent with the evidence from the literature that many students studying by flexible delivery are reluctant to contact institution staff until an issue has developed into a major problem (Fage 1987; McAlister 1998; Murphy and Yum 1998). By then, of course, it may be too late.

Woodley argued that 'today's 'open' and 'distance learning' schemes are obliged to take the matter of student progress very seriously' (Woodley 1987, p 54). Warner et al (1998, p 11) have stated that course providers [illegible]ponsibility for addressing the high attrition rates in flexibly delivered courses.

Since 1995 the Australian National Training Authority has worked to:

> ... make the flexible delivery of vocational education and training a reality for all Australian learners. (EDNA VET Advisory Group 2000, p 7)

An important part of achieving this outcome is to develop a deep understanding of the students, their circumstances, and the barriers that many learners encounter in their attempts to successfully complete VET flexible delivery programs.

BEST COPY AVAILABLE

References

Australian National Training Authority (1996) National Flexible Delivery Taskforce: Final report. Brisbane: Australian National Training Authority.

Boote J (1998) Learning to learn in vocational education and training: are students and teachers ready for it? Australian and New Zealand Journal of Vocational Education Research, vol 6, pp 59-86.

Calder J and McCollum A (1998) Open and flexible learning in vocational education and training. London: Kogan Page.

Cheung D (1998) Developing a student evaluation instrument for distance teaching. Distance Education, vol 19, no 1, pp 23-42.

Cornford, I R (2000) Learning-to-learn strategies: neglected aspects of lifelong learning policy formulation? Australian Vocational Education Review, vol 7, no 1, pp 9-21.

EDNA VET Advisory Group (2000) Flexible learning for the information economy: a framework for national collaboration in vocational education and training 2000-2004. Brisbane: Australian National Training Authority.

Evans T (1994) Understanding learners in open and distance education. London: Kogan Page.

Evans T and Smith P (1999). Flexible delivery in Australia: origins and conceptualisations. FID Review, vol 3, no 3, pp 116-120.

Fage J (1987) Foundation studies counselling and teaching – a case study illuminating the practice of integrated teaching and counselling for new learners. In M Thorpe and D Grugeon (eds) Open learning for adults. Harlow, Essex: Longman UK.

Flexible Delivery Working Party (1992) Flexible delivery: a national framework for implementation in TAFE. Brisbane: Flexible Delivery Working Party.

Grugeon D (1987) Educational counselling and open learning. In M Thorpe and D Grugeon (eds) Open learning for adults. Harlow, Essex: Longman UK.

McAlister S (1998) Maria's story – a student with 'low' qualifications withdraws from higher education. Distance Education, vol 19, no 2, pp 287-298.

Merriam S B (1998) Qualitative research and case study applications in education. San Francisco: Jossey-Bass.

Misko J (1994) Flexible delivery: will a client focus system mean better learning? Leabrook, Adelaide: National Centre for Vocational Education Research.

Misko J (1999) Different modes of delivery – does increased flexibility lead to better student outcomes? Paper presented at the fourteenth Biennial Forum of the Open and Distance Learning Association of Australia, Deakin University, 27 September-2 October.

Misko J (2000) The effects of different modes of delivery: student outcomes and evaluations. Leabrook, Adelaide: National Centre for Vocational Education Research.

Murphy D and Yum J C K (1998) Understanding Hong Kong distance learners. Distance Education, vol 19, no 1, pp 64-80.

Northedge A (1987). Returning to study. In M Thorpe and D Grugeon (eds) Open learning for adults. Harlow, Essex: Longman UK.

Smith P (2000) Preparedness for flexible delivery among vocational learners. Distance Education, vol 21, no 1, pp 29-48.

Thorpe M (1987) Adult learners in open learning. In M Thorpe and D Grugeon (eds) Open learning for adults. Harlow, Essex: Longman UK.

Toussaint D (1990) Fleximode: within Western Australian TAFE. Adelaide: TAFE National Centre for Research and Development.

Warner D, Christie G and Choy S (1998) The readiness of the VET sector for flexible delivery including on-line learning. Brisbane: Australian National Training Authority.

Woodley A (1987) Understanding adult student drop-out. In M Thorpe and D Grugeon (eds) Open learning for adults. Harlow, Essex: Longman UK.

Contact details

Lauri Grace
Postgraduate student in Master of Professional Education and Training,
Deakin University

Postal address:
16 Wallawa St, Wanneroo
Western Australia 6065
Ph/Fax: 08 9306 9510
Email: graces@highway1.com.au

Moving from andragogy to heutagogy in vocational education

Wing Commander Chris Kenyon
RAAF

Stewart Hase
Southern Cross University

It is thirty years since Knowles introduced us to the concept of andragogy as a new way of approaching adult education. Much in the world has changed since that time, and we all know that the rate of change seems to increase every year. But has our approach to vocational education and training truly changed? This paper suggests there is a need to move from andragogy towards truly self-determined learning. The concept of truly self-determined learning, called heutagogy, builds on humanistic theory and approaches to learning described in the 1950s. It is suggested that heutagogy is appropriate to the needs of learners in the workplace in the twenty-first century, particularly in the development of individual capability. A number of implications of heutagogy for vocational education are discussed.

What is heutagogy?

Education has traditionally been seen as a pedagogic relationship between the teacher and the learner. It was always the teacher who decided *what* the learner needed to know, and indeed *how* the knowledge and skills should be taught. In the past thirty years or so there has been quite a revolution in education through research into how people learn, and resulting from that, further work on how teaching could and should be provided. While andragogy (Knowles 1970) provided many useful approaches for improving educational methodology, and indeed has been accepted almost universally, it still has connotations of a teacher-learner relationship. It may be argued that the rapid rate of change in society, and the so-called information explosion, suggest that we should now be looking at an educational approach where it is the learner him/herself who determines what and how learning should take place. Heutagogy, the study of self-determined learning, may be viewed as a natural progression from earlier educational methodologies - in particular from capability development - and may well provide the optimal approach to learning in the twenty-first century.

The distinction Knowles (1970) made between how adults and children learn was an important landmark in teaching and learning practices in vocational education and training, and in higher education. Andragogy, and the principles of adult learning that were derived from it, transformed face-to-face teaching and provided a rationale for distance education based on the notion of self-directedness. There is, however, another revolution taking place in educational circles that appears to go one step beyond andragogy, to a new set of principles and practices that may have application across the whole spectrum of the education and learning lifespan.

This revolution recognises the changed world in which we live. A world in which: information is readily and easily accessible; change is so rapid that traditional methods of training and education are totally inadequate; discipline-based knowledge is inappropriate to prepare for living in modern communities and workplaces; learning is increasingly aligned with what we do; modern organisational structures require flexible learning practices; and there is a need for immediacy of learning. In response to this environment, there have emerged some innovative approaches that address the deficiencies of the pedagogical and andragogical methods.

The idea that, given the right environment, people can learn and be self-directed in the way learning is applied is not new, and has been an important humanistic theme that can be followed through the philosopher Heider (Emery 1974), phenomenology (Rogers 1951), systems thinking (Emery and Trist 1965), double loop and organisational learning (Argyris and Schon 1996), andragogy (Knowles 1984), learner-managed learning (Graves 1993; Long 1990), action learning (Kemmis and McTaggart 1998), capability (Stephenson 1992), and work-based learning (Gattegno 1996; Hase 1998).

The thrust that underscores these approaches is a desire to go beyond the simple acquisition of skills and knowledge as a learning experience. They emphasise a more holistic development in the learner of an independent capability (Stephenson 1993), the capacity for questioning one's values and assumptions (Argyris and Schon 1996), and the critical role of the system-environment interface (Emery and Trist 1965).

Heutagogy is the study of self-determined learning and draws together some of the ideas presented by these various approaches to learning. It is also an attempt to challenge some ideas about teaching and learning that still prevail in teacher-centred learning and the need for, as Bill Ford (1997) eloquently puts it, 'knowledge sharing' rather than 'knowledge hoarding'. In this respect, heutagogy looks to the future in which knowing how to learn will be a fundamental skill, given the pace of innovation and the changing structure of communities and workplaces.

Rogers (1969) suggests that people want to learn and have a natural inclination to do so throughout their life. Indeed, he argues strongly that teacher-centred learning has been grossly over emphasised. He based his *student-centred* approach on five key hypotheses:

- We cannot teach another person directly: we can only facilitate learning;
- People learn significantly only those things that they perceive as being involved in the maintenance or enhancement of the structure of self;
- Experience, which if assimilated would involve a change in the organisation of self, tends to be resisted through denial or distortion of symbolisation, and

the structure and organisation of self appear to become more rigid under threat;

- Experience which is perceived as inconsistent with the self can only be assimilated if the current organisation of self is relaxed and expanded to include it; and

- The educational system which most effectively promotes significant learning is one in which threat to the self, as learner, is reduced to a minimum.

Rogers (1951) also suggests that learning is natural 'like breathing', and that it is an internal process controlled by the learner. Emery (1993, p 79) comments further on 'learning to learn' and on the concept of learning as practiced in the current institutions of learning at the time. He said: 'in learning to learn we are learning to learn from our own perceptions; learning to accept our own perceptions as a direct form of knowledge and learning to suspect forms of knowledge that advance themselves by systematically discounting direct knowledge that people have in their life-sized range of things, events and processes'.

The world is no place for the inflexible, the unprepared and the ostrich with its head in sand, and this applies to organisations as well as individuals. Capable people are more likely to be able to deal effectively with the turbulent environment in which they live by possessing an 'all round' capacity centred on self-efficacy; knowing how to learn; creativity; the ability to use competencies in novel as well as familiar situations; and working with others.

Research and theorising about capability would suggest that there is a need to develop an understanding of how to develop capable people (eg Graves 1993; Stephenson 1994; Stephenson and Weil 1993) and how to enable capability to express itself in organisations (eg Cairns and Hase 1996; Hase 1998; Hase et al 1998; Hase and Davis 1999). Both of these needs require a heutagogical approach.

A heutagogical approach recognises the need to be flexible in the learning, where the teacher provides resources but the learner designs the actual course he or she might take by negotiating the learning. Thus learners might read around critical issues or questions and determine what is of interest and relevance to them and then negotiate further reading and assessment tasks. With respect to the latter, assessment becomes more of a learning experience rather than a means to measure attainment. As teachers we should concern ourselves with developing the learner's capability, not just embedding discipline-based skills and knowledge. We should relinquish any power we deem ourselves to have.

The issue of enabling capability is no less interesting and challenging, and confronts the issue of power more directly. Managers and supervisors in organisations need to be capable people themselves in order to facilitate the capability of others. Highly controlled managerial styles usually reflect high levels of anxiety or the need for power on the part of the manager. As a recent study of a number of Australian organisations has shown (Hase et al 1998), a most important characteristic of a capable organisation is the capacity for managers to empower others, to share information, and develop capability. These are not new concepts of course, and are endorsed by many contemporary management writers. It is perhaps surprising that many managers continue to ignore the evidence of the success of such approaches to people in organisational management.

The reasons for this lack of change might be found in the way in which managers are trained or maybe not trained. There is a heavy emphasis in our management schools and in organisations on the technical aspects of management. The plethora of short management training programs attests to the simplistic approaches we take in addressing management deficiency. A heutagogical approach would develop the capability, not just the competency of managers. We might then see more innovative approaches to fully enabling people to express their capability (and further develop it by doing so), such as that found recently in a major mining and construction company (Davis and Hase 1999) and in other Australian commercial and government organisations (Hase et al 1998).

Heutagogy and vocational education and training

The Public Sector Executive Management Program (or PSEMP for short) is run annually at Southern Cross University for the RAAF. It is a postgraduate level course and is highly intensive, with students working up to 60 hours a week for five months. The aim of PSEMP is to graduate students who can work as trouble shooters, problem solvers and general consultants on change and improvement in a wide variety of organisations around Australia. One of the authors, Chris Kenyon, designed the PSEMP in 1995 and since then we have endeavoured to use a heutagogical approach when working in different areas with the students.

All consultants seem to need masses of data, and while facts and figures are all very well, students identified their need to be highly proficient at interviewing people in order to get information and opinions. So, theories of interviewing were introduced to the PSEMP in 1996. In 1997 students asked to extend their abilities, and so practical experiences in interviewing were introduced to the program. Over the past three years our lecturers have had to learn more and more about the nature of communication during interviews, and this year, as a result of requests, we'll be covering the extra dimension of seeing an interview situation from the interviewee's perspective. Look on the net and you won't find much on this addition to the program, so we're going to have to do some learning and research ourselves in order to meet student needs.

Consultants are greatly in demand when it comes time to formulate an organisation's annual or five year plan. Now, while we can teach the theories of planning, students soon find that they also need practical experience; this was introduced to the program in 1998. Since then, the demand has been for even more practical experience, particularly in the area of reviewing and updating the plans that have been produced. Again, there is little information around on this topic. This year, not only will lecturers need to research the topic more exhaustively before the program begins, but during the program itself students will be asked to research for themselves how two or three organisations use their plans as working documents rather than as glossy brochures. Their findings will provide useful learning for our staff.

An essential part of a successful plan is the identification of performance measures that can be used to assess how well an organisation is progressing. While we have taught Performance Measurement at some length, our focus was on commercial organisations that produced something. Students found the associated theories to be inadequate when dealing with bureaucratic organisations like state departments, and so we've had to extend our knowledge in this area. Again, the demand for practical experience has been high, and so this has been introduced. This year students have already asked for more concrete examples of how performance measures are derived. So we are taking perhaps the unusual step of inviting previous graduates to give presentations on how they derived the performance measures for flying safety that have been adopted in Australia and several European countries. Our staff will listen and learn from these presentations.

Heutagogy and vocational education and training

Heutagogical approaches to vocational education and training recognise the critical importance of the learner in all aspects - not just the teaching - of the learning process. The aim is to enable people to remember how to learn and facilitate the development of capability. Thus the major stakeholder is involved in the determination of learning objectives and how these may be achieved. Clearly this is a negotiated experience if formal learning is involved. So, the emphasis is on process rather than outcome. By being person-centred, ownership over the learning is enhanced, as well as the likelihood that the learning will in fact be meaningful.

Most evaluations of learning occur at the end of some sort of program. This approach suggests that evaluation is ongoing and formative rather than summative, in similar ways to action learning processes. This means that programs need to be flexible enough to change. In non-formal learning settings, such as the day-to-day activity in the workplace, it is a question of designing ways for people to get together and harness their learning in relation to current projects. One way of achieving this is described in detail in another paper in this conference by Davis and Hase, called 'The river of learning'.

There is an assumption in all this that while competence in a particular area is essential, there is a need to move beyond knowledge and skills that really measure the past, towards capability that is preparation for the future.

There are many good examples of workplace learning in the vocational education and training sector now. Usually these involve at some level work-based projects as a means of assessment, as well as facilitated learning as opposed to teaching. The negotiated design of relevant assessment between the learner and the facilitator is essential if the learning is to be at all relevant and person-centred. The guru factor is removed.

It is surprising the extent to which effort is put into designing what are purported to be self-directed learning materials in print form and now on the web as 'online learning'. Most learning materials of this form are in fact teacher centred rather than self-directed and usually consist of directed reading, content and concept summaries and then activities, or some such combination. A heutagogical approach emphasises the provision of resources rather than content. If an outcome or assessment is designed in the right kind of way (and negotiated) and a few signposts are provided, the learners have to try and make sense of the topic or issue and come to their own conclusions (which they will do anyway despite what the teacher says). Learner-directed questions become the norm rather than teacher-directed answers.

Team-based approaches to learning assists people to learn how to cooperate in teams. However, there is not much point in this process if, in fact, assessment is designed as competitive rather than cooperative. Again, negotiation is a critical skill and needs to be as much a win-win process as possible.

As Dawkins has suggested, answers are easy to find; it is knowing what questions to ask that is the real limit to our understanding. A real challenge to the designers of learning experiences, whether they are formal or informal, is to be creative enough to have learners ask questions about the universe they inhabit. Our education and training, and management systems, are often designed in such a way as to limit this kind of creative thinking. These systems would rather provide people with the question and the answer together as a learning package. Heutagogical approaches suggest a more active role for the learner.

It's interesting how much tacit learning people have about all sorts of things, yet they rarely articulate it. One way of enhancing learning is to access this tacit learning and then have them question and improve it in new ways that make sense to them. The key to this is how to create opportunities in every day work environments where this can happen, without having to resort to classrooms and the internet. One of the most common reasons that I hear about why workers do not access formal training programs is that there is so little 'down time' .o do so; not enough rainy days. Making learning an integral part of day-to-day work and finding ways to harness that learning and make sense of it is one of the most critical challenges that face educators and managers in modern organisations.

Summary

People know how to learn; they did it from birth until they went to school. It's a question of helping them remember how to do it. We need to help people have confidence in their perceptions and how to question their interpretation of reality, within a framework of competence.

References

Argyris C and Schon D (1996) Organisational learning II. Reading: Addison-Wesley.

Cairns L G and Hase S. Capability and re-engineering in educational change. Paper presented at Re-engineering for Change: Educational Innovation for Development - the second ACEID-UNESCO International Conference, Bangkok, August.

Cohen S G and Ledford S G (1994) The effectiveness of self managing teams: a quasi-experiment. Human Relations, vol 47, no 1, pp 13-43.

Emery F (1974, unpublished) Educational paradigms.

Emery F and Trist E (1965) The causal texture of organisations. Human Relations, vol 18, pp 21-32.

Fiske S T and Taylor S E (1991) Social cognition. New York: McGraw-Hill.

Fosnot C T (1996) Constructivism: theory, perspective and practice. New York: Teachers College Press.

Graves N (ed) (1993) Learner managed learning: practice, theory and policy. Leeds: WEF and HEC.

Hase S (1998) Work-based learning for learning organisations. In J Stephenson and M Yorke (eds) Capability and quality in higher education. London: Kogan Page.

Hase S and Davis L (1999) From competence to capability: the implications for human resource development and management. Association of International Management, seventeenth Annual Conference, San Diego, August.

Hase S and Kenyon C (2000) From andragogy to heutagogy. Ultibase, Royal Melbourne Institute of Technology, December.

Hase S, Cairns L G and Malloch M (1998) Capable organisations: the implications for vocational education and training. Adelaide: Australian National Training Authority.

Hewitt J P (1997) Self and society: a symbolic interactionist social psychology (seventh edition). Boston: Allyn and Bacon.

Kemmis S and McTaggart R (1988) The action research planner. Geelong: Deakin University Press.

Knowles M (1970) The modern practice of adult education: andragogy versus pedagogy. New York: Associated Press.

Long D (1990) Learner managed learning: the key to lifelong learning and development. New York: Kogan Page.

Rogers C R (1951) Client centred therapy. Boston: Houghton Mifflin.

Saul J R (1997) The unconscious civilization. Penguin: Ringwood.

Stephenson J (1994) Capability and competence: are they the same and does it matter? Capability, vol 1, no 1, pp 3-4.

Stephenson J and Weil S (1992) Quality in learning: a capability approach in higher education. London: Kogan Page.

Contact details

Stewart Hase
Associate Professor

Southern Cross University
PO Box 157
Lismore 2480
New South Wales, Australia
Tel: +61 2 66203166
Email: shase@scu.edu.au

Work-based learning in the contemporary Australian VET sector: a re-appraisal

John Henry

Deakin University, Victoria

John Mitchell

John Mitchell and Associates

Susan Young

Framing the Future Project

This paper takes the opportunity to reflect on developments over the past ten years in the field of professional development in the vocational education and training (VET) sector of Australia, and to identify the supporting theoretical arguments for the shape that these developments have taken. From this analysis, an integrated image of work-based learning (WBL) as a model of professional development is projected.

Key developments in VET sector professional development: 1990s

During the first half of the 1990s, WBL became the preferred model for staff development in the VET sector.

The impetus for this development was the publication of a discussion paper on WBL by Carter and Gribble (1991) for the Technical and Further Education (TAFE) National Staff Development Committee (TNSDC). The model for WBL espoused by Carter and Gribble was trialled by TNSDC in a national WBL project resulting in a report titled: *Work based learning, implications and case studies* (TNSDC 1992).

By the end of 1992, a critical issue for the National Staff Development Committee of the Australian National Training Authority (ANTA) (NSDC) was how to assess the potential for WBL, as a national staff development initiative, to act as a 'catalyst for behavioural, attitudinal and organisational workplace change within the national VET sector' (NSDC 1995, p 2). The approach taken by NSDC to this issue was to define WBL in practice through an explicit and well-known staff development process - action learning. In 1993, NSDC commissioned a research study to 'explore the potential of action learning as an additional means to support the development of staff involved in national training reform' (NSDC 1995, p 2).

Based on the positive findings of this research study, the NSDC agreed that action learning was an appropriate methodology for the structuring of national VET sector staff development programs. The outcome of this decision was the establishment of a national staff development 'CBT in Action Scheme' in mid-1993, within which action learning became the work-based model of learning. This staff development program, along with several others, was supported by the NSDC through to 1996.

In 1995, the NSDC revisited WBL as it had been defined and supported through the 'CBT in Action Scheme'. A discussion paper was released in June of that year entitled 'Work-based learning: a model for national staff development'. This paper crystallised the rationale of NSDC for supporting WBL as the preferred model for its national staff development programs.

The 1995 NSDC rationale for WBL was a continuation of the Carter and Gribble (1991) argument that staff development models for the VET sector should reflect the changes that are being promoted more broadly in Australian businesses to meet the challenges of the post-industrial economy. The 1995 NSDC discussion paper asserted that its staff development framework must be consistent with both the training demands of an increasingly complex public and private organisational context and the national training policy of ANTA.

Put directly, the argument ran as follows:

- ANTA's national training policies have been informed by industry and business interests and therefore reflect the training needs and demands of industries and enterprises facing the workforce and organisational challenges of the emerging post-industrial economy in Australia and globally;

- workplace training is a consistent demand placed on training providers in the NVETS by employers seeking the most effective way of meeting their workforce training needs, and is therefore a key component of ANTA policy;

- NVETS' staff development programs must therefore focus on learning strategies that provide structure and flexibility to the delivery of workplace training in order to achieve outcomes required by clients;

- NVETS staff development programs with an emphasis on workplace training delivery also need to promote the necessary behavioural, attitudinal and organisational workplace change (cultural change) to NVETS' training provider institutions, so that the delivery of training in business and industrial workplaces becomes understood and acceptable as routine practice by training staff;

- an effective approach for achieving these twin goals of workplace training capability and associated supportive culture within training provider organisations is to provide the opportunity for training provider staff to experience structured workplace training/ learning themselves.

Interestingly, the 1995 NSDC discussion paper developed the argument for its preferred VET practitioner staff development framework by proxy. The logic seems to be that if a case can be made for a particular set of staff development strategies for enterprises of the Australian post-microeconomic reform and post-industrial period, then the same case applies, according to the argument unpacked above, to the VET sector.

While still promoting the WBL model as the staff development framework for the VET sector, NSDC was proposing for the 1996-1998 period to expand the learning strategy options available through its programs from its 1993-1995 emphasis on action learning.

ANTA intervened in late 1996 by contracting NCVER to conduct new research into professional development for the VET sector. NCVER commissioned five projects, the reports of which were published together in 1997 as *Research Reports into Professional Development* (Mather et al 1997).

The following were key themes from these reports:

- Professional development programs are more effective when linked to national VET policy goals and organisational change.
- As examples of learner-centred professional development approaches that have a greater impact on organisational change and participant staff development, successful professional development methodologies include work-based and self-paced learning with action learning.
- Professional development programs need to include, in addition to front-line VET practitioners, professional development project coordinators and facilitators and managers of training organisations.
- Evaluations of professional development programs need to move beyond those designed to mainly satisfy funding requirements to become the basis of program improvement.

Mather et al (1997) have identified learner-centred approaches amongst the innovative methodologies in VET sector professional development. 'Learner-centred methodologies that allowed flexibility, a mix of experience/practice/theory/reflection, and structured contact with other learners, had a much greater long-term impact on attitudes and behaviours' (Ward 1998, p 14). Strong support was noted for action learning and mentoring.

WBL, as a conceptual device in the discourse of professional development in the national VET sector, gained in strength from these NCVER-commissioned research reports. It is thus no surprise that WBL then became the major structuring framework of ANTA's two key national staff development projects from 1997; *Framing the future* (FTF) and *LearnScope*.

WBL and action learning came together explicitly as integrated components of a VET sector staff development model with the establishment of the FTF project in 1997. Planning for FTF began in 1996, and in May 1997 ANTA contracted a project team from the Para Institute of TAFE (South Australia) to manage this national staff development initiative.

Field (1999, p 2), in his evaluation report of FTF, commented that the FTF project team had developed this staff development program in a way that mirrored 'the kinds of characteristics the VET system in Australia is seeking – for example, being empowering for participants, user driven and flexible'.

Through the funding of individual WBL projects, FTF supported the staff development needs of people in the VET sector who are involved with the implementation of the National Training Framework (NTF). These projects typically involved small groups of people dealing with an idea or issue within a work team identified by the organisation as needing to be resolved. These projects had management support for the work being undertaken, industry/enterprise involvement and a project facilitator (ANTA 2000).

The central project team of FTF defined its work in terms of a challenge to develop a model of staff development that would:

- promote the use of workbased learning as a means of moving beyond awareness to practical application;
- help VET staff to keep up to date with emerging changes within the VET system; and
- be demand driven, relevant, flexible, cost effective and timely (ANTA 1998).

This challenge was tackled through a model of staff development that encouraged VET practitioners to take responsibility for their own learning to meet their individual needs. The model made use of a number of learning strategies - action learning, technology-based learning, and sharing and reflection among groups of practitioners. FTF attempted, through its model, to support staff development experiences that were real and connected directly with the work of training staff and management. In this way, FTF projects were designed to assist VET sector personnel tackle real work problems and challenges with increased knowledge and understanding.

The advantages claimed by FTF (ANTA 1998) for its particular adaptation of WBL were that its staff development model:

- was *flexible,* as people chose the level and scope of staff development they needed; there were few constraints on how, when and where they learn.
- was *empowering,* as it moved VET practitioners beyond simply gathering facts about the new system to the development and application of skills and knowledge as it affected them.
- had the potential to be *self-sustaining,* as it facilitated the development of a workbased learning culture.

Clearly, FTF emerged from the 1990s as a proponent of WBL informed by the initiatives introduced by ANTA into the evolution of its national framework for staff development within the VET sector, beginning in 1991 with the Carter and Gribble discussion paper for the TNSDC and flowing through the NSDC staff and management development programs from 1992 to 1996. The FTF Program is a grand daughter of this WBL speciation process, and is now perhaps poised for a further metamorphosis into yet new but related forms of staff development.

Theoretical foundations of WBL

Advocates of WBL in the 1990s (eg Marsick and Watkins 1990; Mumford 1997) refer for support for this approach to professional development to two main domains of research and debate; that related to the development of theoretical perspectives relevant to adult education and learning, and that associated with the transformation of organisations into so-called 'learning organisations'. Where WBL approaches to professional development tend to be presented to the VET sector through more technical and procedurally styled documents, often the appeal of these accounts to the VET practitioner audiences is through their implicit connectedness to previously accepted concepts of adult education and organisational change processes.

Accordingly at this point, we undertake a brief review of the theoretical foundations of the contemporary discourse surrounding WBL drawn from literature on adult education and learning organisations.

Adult education

Zuber-Skerritt (1992, p 54) claimed that the principles of adult learning 'led to a revitalisation of action learning' in the field of professional development. She reached this conclusion after reviewing theories of knowing and learning as relevant to professional development. Of relevance is Zuber-Skerritt's foregrounding of holistic theories of knowing and learning. Holistic theories are defined as those that 'do not consider parts of the learner's system (eg. behaviour, memory, speech acts, etc.) but the phenomena of learning in the person as a whole; they describe the phenomena as they appear in the person's consciousness' (1992, p 44).

Holistic theories of knowing and learning, according to Kolb (1984, p 21), encourage 'integrative perspectives on learning that combine experience, perception, cognition and behaviour (action)'. This is because learning is perceived as a dialectical process that integrates experience and concepts, observation and action in real and problematic situations. This dialectical conception of learning (and education) is a common theme linking these various examples of holistic learning theories.

Through dialectical thinking, development of social-political perceptions and awareness could be acknowledged and incorporated into holistic theorising about adult learning. Kolb (1984) has referred to the socio-emotional development throughout a person's life cycle, and Zuber-Skerritt (1992), in her commentary on Kolb, has noted the contribution of the radical education movement as represented by Illich (1972) and Freire (1972) to experiential learning theory. This construction of the process of dialectical thinking within a holistic orientation to adult learning is the antithesis of learning associated with static and deterministic thinking. Dialetical thinking within a model of experiential learning is, in essence, thinking within processes of social and organisational change.

In Kolb's theory of experiential learning, dialectical thinking is incorporated as central to the process of creating new knowledge through the transformation of experiential learning (1984, p 38). This is clearly represented in his six propositions of adult experiential learning:

1. Learning is best conceived as a process, not in terms of outcomes;

2. Learning is a continuous process grounded in experience;
3. The process of learning requires the resolution of conflicts between dialectically opposed modes of adaptation to the world;
4. Learning is a holistic process of adaptation to the world;
5. Learning involves transactions between the person and the environment; and
6. Learning is the process of creating knowledge. (Kolb 1984, pp 25-38)

The emphasis on life experiences of adult learners by Knowles (1985) as being a rich resource for self-directed, problem solving groups, and Candy's (1991) reference to constructivism in his analysis of lifelong learning and the way adults create personal constructs in order to give meaning to their world of experiences, also connect to holistic theories of knowing and learning with their cyclical processes linking experiences to informed action and expanded understanding.

Mumford (1990) developed his own version of the experiential learning cycle with full acknowledgement to Knowles (1985, 1986), Kolb (1984) and Lewin (1948). Mumford (1997) overlaid his four-staged learning cycle (experiencing, reviewing, concluding and planning) onto Revans' (1982) work on action learning.

His revised action learning - 'learning equation' - enabled Mumford (1997) to emphasise the iterative nature of action learning by initially associating Revan's 'Questioning Insight' with the reviewing stage of his learning cycle. This was intended to lead members of an action learning set to the other three stages of his learning cycle before reviewing the experience of their planned new action as the start of the next learning cycle.

> The Action Learning process is potentially extremely rich because it provides scope for consistently going around the Learning Cycle and discovering more about yourself, more about the process, more about how to transfer particular experiences to other situations.
> (Mumford 1997, p 12)

What emerges from this short exploration of the learning theories informing the discourse on adult learning is a direct discursive connection to WBL in the form of action learning.

Learning organisations

The substantial literature on learning organisations provides a further theoretical and discursive foundation to the contemporary construction of WBL in the VET sector. Although the notion of a learning organisation can be a somewhat ambiguous concept (Poell et al 2000), it is structured by the recurring theme of learning facilitation at individual, team and organisational levels linked to the argument that teams are crucial contexts in post-industrial enterprises for the organisation of both work and learning (Dixon 1994; Senge 1990).

Also of interest is the tension in the learning organisation literature over the positioning of individual and collective learning. For example, Duignan (1995, p 7) recognises learning as 'essentially an individual phenomenon', and then argues for particular forms of learning programs that are conducive to the transformative agenda of organisations. 'Learning programs ... in organisations are unlikely to succeed if they fail to consider the complexities of organisational life .... While individuals and groups can be provided with learning opportunities, the challenge is to transform this learning into organisational learning' (Duignan 1995, p 8). Mabey et al (1998) and Smith (1998) would respond to this challenge by positioning staff development within a strategic human resource model where individual staff learning is closely linked to organisational objectives.

Meeting this challenge requires, in the first instance, an understanding of the complexities of adult learning in an organisational context; the context of the workplace. The key researchers addressing this challenge include Aygyris (1990, 1993); Boud (1997); Boud et al (1985); Garrick (1998); Kolb (1984); Marsick (1987); Marsick and Watkins (1990); Mezirow (1981, 1990) and Schon (1983, 1987). The work of these researchers focuses on learning within organisations as workplaces, as distinct from learning that occurs within formal educational institutions. The implications of this body of research work on organisational transformation are that individual workbased learning can, under certain conditions, lead to organisational learning and transformative change.

These certain conditions are those that promote the individual learning beyond what Mezirow (1981) identified as instrumental learning and onto dialogic and self-reflective learning. Dialogic learning occurs when people work and learn together in teams, for example. Learning in this dialogic domain is expected to expand as individual learning is transferred into collaborative and social organisational learning activities. Self-reflective learning is transformative learning as it involves individuals critically reflecting on their identity as staff and on their contribution to the social group within their organisation. According to Mezirow (1981), critical reflectivity leads to 'empowerment' of workers in an organisation. Associated ideas are those, for example, of Schon (1983) ('reflection-on-action'), Knowles (1980) ('self-direction') and Argyris (1993) ('double-loop learning').

Another strand of theorising linking individual adult learning to organisational learning is represented by the work of Billett (1993, 1994), Brown et al (1989), Lave and Wenger (1991), Vygotsky (1978) and Wenger and Snyder (2000). These researchers argued that organisations, and the workplaces within them, construct contexts for individual and team learning that are sociocultural in nature. These sociocultural contexts for learning are 'communities of practice' (Wenger and Synder 1998, 2000; Young 2000) which define the scope for individual activity, in the sense of authentic tasks.

Within communities of practice, workplace learners are able to assimilate the culture, values and ethos of their organisations (Brooker and Butler 1997; Fuller 1996). Successful communities of practice, however, are those that are able to transform themselves by the learning synergies latent within any sociocultural entity. The key to transformation is the characteristics of the communication networks within a community of practice (Billett and Rose 1996; Cunningham 1998; Pea 1993), eg quality communication between participants forming a WBL network within a community of practice would be an explicit professional development strategy directed towards meaning appropriation, identifying and understanding relevant knowledge, and testing that knowledge in new and changing circumstances.

This research literature on learning organisations provides the underpinning theoretical and discursive arguments in support of WBL. WBL, in the form of action learning (Mumford 1995; Passfield 1996) and action research (Clark 1989; Huse and Cummings 1985; McLennan 1989), emerges as a methodology through which transformative adult learning can lead to an organisation being able to 'continuously challenge and transform (its) own concept of identity' (Limmerick et al 1992, p 8). Passfield (1996, p 38) has argued that this capacity for organisational 'self-transcendence' (Jantsch and Waddington 1976, p 9) is a feature of an 'action-learning organisation'. This conflation of action learning by Jantsch and Waddington, as a form of WBL, with the concept of a learning organisation under the rubric of 'capacity building for self transcendence', clearly connects the research on learning organisations with the dominant contemporary conceptualisations and constructions of WBL, as a programmatic model for professional development in the national VET sector of Australia.

An integrated image of WBL

This review of WBL provides the beginnings of a more detailed descriptive framework for evaluating and researching in the field of professional development. This framework draws together theoretical perspectives from:

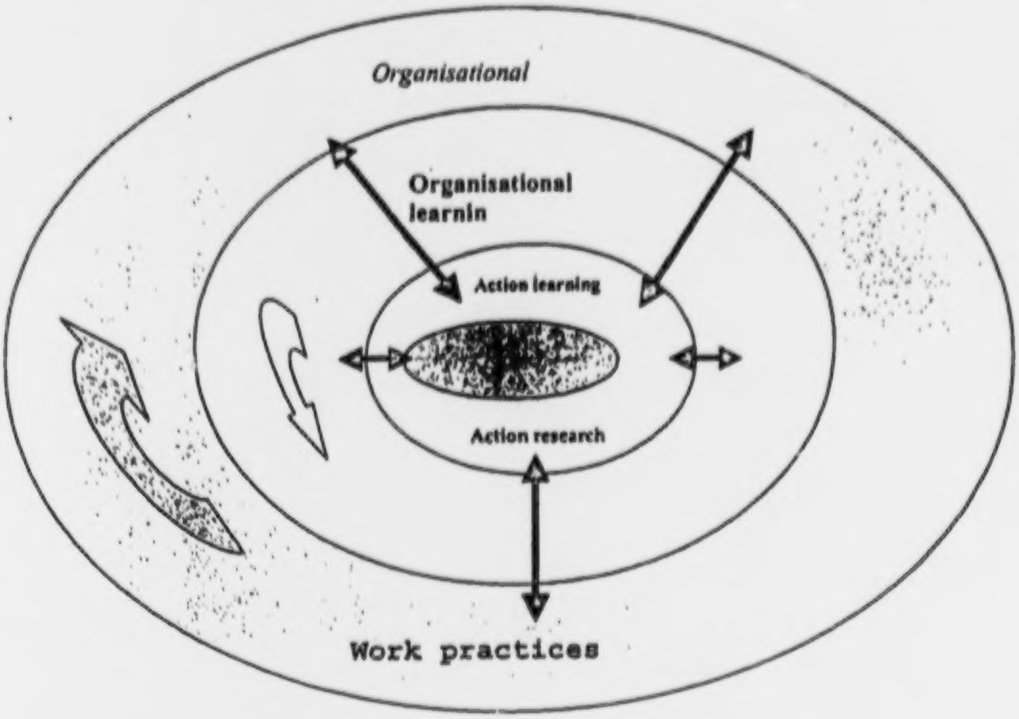
- adult education and learning (andragogy); and
- learning organisations.

Also included in this emerging framework are the more general theories of critical social science that inform the methodologies of action learning and action research. The framework builds from the interconnecting core ideas within these theoretical perspectives. This connectedness can be represented across registers of learning and working activity of an organisation as in Figure 1 below.

Adult learning theory has been centred in this representation of the components of a potential theoretical framework for describing and analysing professional development programs. Adult learning theory informs WBL programs through action learning/research. These methodologies promote individual and group learning within an organisation and thereby initiate changes to the learning and working domains of the organisation. These domains of learning and working, while loosely coupled, are linked by the shared work and learning experiences of the same individuals constituting the organisation as a community of practice.

As a developing construct, integrating compatible ideas from adult learning, learning organisations and action learning/research, this representation facilitates new ways of thinking about WBL as a professional development model. This representation, given its grounding in the research literature briefly traced in this paper, locates WBL as an appropriate and relevant approach to professional development in contemporary times.

Figure 1: Representation of the interconnectedness of and dynamics between andragogically-informed WBL (action learning/research) and the learning and working domains within an organisation


Organisational
Organisational learnin
Action learning
Action research
Work practices

Appendix - Theoretical foundations of WBL: core ideas

Andragogy

Adult learning theories foreground the following learning program features as key components for adult learner engagement:

- the program is experience-based and experiential
- the program facilitates learner-directedness, learner-centredness and learner self-determination
- the program activities are relevant with immediacy of application; they are action oriented
- the program encourages adaptive behaviours through transactions between the learner and his/her environment
- the program promotes dialectical thinking and holistic learning processes through iterative problem solving and the resolution of contradictions.

Learning organisations

A learning organisation is recognised as creating an internal environment which values:

- a sociocultural climate that facilitates individual, team and organisational learning
- the development of problem-solving capacities in employees
- individual empowerment, self-direction, independent decision-making and autonomy coupled with critical thinking and reflection
- positive worker dispositions towards flexibility, innovation, adaptability and commitment to organisational goals
- achievement of required employee capacities through strategic/emancipatory models of staff development with an emphasis on WBL
- an organisational capacity for continuous improvement and, when necessary, transformational change.

Action learning and action research

Action learning and action research are theoretically supported (from theories informing holistic learning programs and critical social science discourse) methodologies for structuring collaborative problem-oriented professional development.

The relevant characteristics of action learning/research are that both:

- are workbased.

- are iterative through experientially based cycles involving practice (work) action theories of individuals and teams, plus learning and newly created knowledge (theories) expressed through innovative practice. They are therefore praxis focused.

- value critical self and group reflection by practitioners informed by and informing strategic new social action steps undertaken by the same practitioners attempting to resolve identified contradictions experienced in their workplaces.
- seek to change social circumstances (including institutional/organisational) by transforming participant understandings of these circumstances as they struggle to resolve problematic contradictions experienced in their social (work) setting.
- claim to liberate social actors (employees and managers), through collaborative action-based reflection, from routinised and habitual ways of thinking about themselves and their scope and capacity to act in and on their social world. In this sense, they claim to be potentially self-transcendent, emancipatory and socially (institutionally) transforming.

References

ANTA (1998) Workbased learning: a ready reference. Framing the Future, Australian National Training Authority, Melbourne, Australia.

ANTA (2000) More people, places and projects. Framing the Future, Australian National Training Authority, Melbourne, Australia.

Argyris C (1990) Overcoming organisational defences. New York, USA: Prentice-Hall.

Argyris C (1993) On organisational learning. Oxford: Blackwell.

Argyris C and Schon D A (1978) Organisational learning: a theory of action perspective. Reading, USA: Addison-Wesley.

Billett S R (1993) What's in a setting - learning in the workplace. Australian Journal of Adult and Community Education, vol 33, no 1, pp 4-14.

Billett S R (1994) Situated learning - a workplace experience. Australian Journal of Adult and Community Education, vol 34, no 2, pp 112-130.

Billett S R and Rose J (1996) Developing conceptual knowledge in the workplace. In J Stevenson (ed) Learning in the workplace: tourism and hospitality, pp 204-228. Brisbane, Australia: Centre for Learning and Research, Griffith University.

Boud D (1997) Providing lifelong learning through work-based study: challenges for policy and practice. Paper presented at the International Lifelong Learning Conference, University of Surrey, England, July.

Boud D, Keogh R and Walker D (1985) Reflection: turning experience into learning, London, UK: Kogan Page.

Bramley (1996) Evaluating training effectiveness. London, UK: McGraw Hill.

Brooker R and Butler J (1997) Learning context within the workplace: as perceived by apprentices and their workplace trainers. Journal of Vocational Education and Training, vol 49, no 4, pp 487-510.

Brown J S, Collins A and Duguid P (1989) Situated cognition and the culture of learning. Educational Researcher, vol 18, no 1, pp 32-42.

Candy P (1991) Self-direction for lifelong learning - a comprehensive guide to theory and practice. San Francisco, USA: Jossey-Bass.

Carter E M A and Gribble I A (1991) Work-based learning. Discussion Paper, TAFE National Staff Development Committee, Melbourne, Australia.

Clark A W (ed) (1989) Experimenting with organisational life: the action research approach. New York, USA: Plenum Press.

Cunningham J (1998) The workplace: a learning environment. Paper presented at the First Annual Conference of the Australian Vocational Education and Training Research Association, Sydney, February.

Dixon N M (1994) The organisational learning cycle: how we learn collectively. London, UK: McGraw-Hill.

Duignan P (1995) Leaders as learners: building a learning organisation. In D Lucardie (ed) CPE'95, Continuing Professional Education in the Learning Organisation, University of New England, Armidale, Australia.

Field L (1999) Evaluation 98. Framing the Future, Australian National Training Authority, Melbourne, Australia.

Freire P (1972) Pedagogy of the oppressed. Harmondsworth, UK: Penguin.

Fuller A (1996) Modern apprenticeship, process and learning: some emerging issues. Journal of Vocational Education and Training, vol 48, no 3, pp 229-248.

Garrick J (1998) Informal learning in the workplace: unmasking human resource development. London, UK: Routledge.

Gould, S J (1989) An asteroid to die for. Discover, vol 69, October.

Huse E F and Cummings T G (1985) Organisation development and change. New York, USA: West Publishing Co.

Illich I (1972) Deschooling society. New York, USA: Harrow Books.

Jantsch E J and Waddington C H (1976) Evolution and consciousness: human systems in transition. Reading, USA: Addison-Wesley.

Knowles M S (1985) Andragogy in action. San Francisco, USA: Jossey-Bass.

Kolb D A (1984) Experiential learning: experience as the source of learning and development. New Jersey, USA: Prentice-Hall.

Lave J and Wenger E (1991) Situated learning - legitimate peripheral participation. Cambridge, UK: Cambridge University Press.

Limerick D, Passfield R and Cunnington B (1992) Transformational change: towards an action learning organisation. Paper presented at the CAPSM Conference, Griffith University, Brisbane, Australia, 27-28 November.

Mabey C, Salaman, G and Storey J (1998) Human resource management: a strategic introduction. Oxford: Blackwell, pp 357-390.

Marsick V J (ed) (1988) Enhancing staff development in diverse settings. New Directions for Continuing Education. San Francisco, USA: Jossey-Bass.

Marsick V J (1987) New paradigms for learning in the workplace. In V J Marsick (ed) Learning in the workplace. London, UK: Croom Helm.

Marsick V J and Watkins K E (1990) Informal and incidental learning in the workplace. London, UK: Routledge.

Mather R, Simons M, Harris R, Guthrie H and Perkins K (1997) Research ANTA reports into professional development. Brisbane: Australia.

McLennan R (1989) Managing organisational change. New Jersey: Prentice-Hall.

Mezirow J (1981) A critical theory of adult learning and education. Adult Education, vol 32, no 1, pp 3-27.

Mumford A (1990) The individual and learning opportunities. Industrial and Commercial Training, vol 22, no 1, pp 17-22.

Mumford A (1995) Learning at the top. McGraw-Hill.

Mumford A (ed) (1997) Action Learning at Work. Aldershot, UK: Gower Publishing.

National Staff Development Committee (1995). Work based learning. A model for national staff development. Discussion Paper, ANTA, Melbourne, Australia.

Passfield R (1996) Action learning for professional and organisational development: an action learning case study in higher education. Unpublished PhD Thesis, Griffith University, Brisbane, Australia.

Pea R D (1993) Learning scientific concepts through material and social activities: conversational analysis meets conceptual change. Educational Psychologist, vol 28, no 3, pp 265-277.

Poell R F, Chivers, G E, Van der Krogt, F J and Wildemeersch D A (2000) Learning-network theory. Management Learning, vol 31, no 1, pp 25-49.

Revans RW (ed) (1982) The origins and growth of action learning. London, UK: Chartwell-Bratt.

Schon D A (1983) The reflective practitioner. New York, USA: Basic Books.

Schon D A (1987) Educating the reflective practitioner. San Francisco, USA: Jossey-Bass.

Senge P M (1990) The fifth discipline. USA: Doubleday Currency.

Smith A (1998) Training and development in Australia. Butterworths: Sydney.

TAFE National Staff Development Committee (1992) Work based learning, implications and case studies. Melbourne, Australia: TAFE National Staff Development Committee.

Vygotsky L S (1978) Mind in society - the development of higher psychological processes. Cambridge, MA, USA: Harvard University Press.

Ward P (1998) Innovations and research in professional development in vocational education and training: literature review. Sydney, Australia: NSW Department of Education and Training.

Wegner E C (1998) Community. In E C Wegner (ed) Communities of practice: learning, meaning and identity. Cambridge, UK: Cambridge University Press, pp 72-85.

Wegner E C and Snyder W M (2000) Communities of practice: the organisational frontier. Harvard Business Review, vol 78, no 1, pp 139-145.

Young S. (2000) Managing long-term impacts of short-term projects. AVETRA Conference, Canberra, March.

Zuber-Skerritt O (1992) Professional development in higher education: a theoretical framework for action research. London, UK: Kogan Page.

Contact details

John Henry
Ph: +61 3 5227 2073
Email: jah@deakin.edu.au

John Mitchell
Email: johnm@jma.com.au

Susan Young
Email: Susan.Young@regency.tafe.sa.edu.au

Flexible delivery as a 'whole-organisation': what does this mean in practice?

John Henry

Deakin University, Victoria

Lyn Wakefield

Gordon Institute of TAFE, Victoria

This paper is a report of research work in progress plus an account of the development of the research approach used in the project.

The research project in progress is entitled 'Support Services for Flexible Delivery'. It is commissioned by TAFE Frontiers and undertaken by the Deakin/Gordon Research Institute for Professional and Vocational Education and Training (RIPVET). The research approach through which the work in this project is structured is called 'Generalisations from Case Studies'.

We have divided this paper into two main sections: in the first section we provide an account of the evolution of the 'Generalisations from Case Studies' (GCS) research method through a series of research projects undertaken in the VET sector from 1995 through to the present. This account provides the research method background to the TAFE Frontiers project.

In the second section of the paper we take you through the research work to date in the TAFE Frontiers project, principally to show how we have been able to initiate this project using the GCS approach.

Evolution of a research method

There are four research projects through which the GCS research method was developed, tested and refined. These projects are:

- Delivery of VET to Remote Aboriginal Communities funded by ANTARAC and undertaken by Batchelor College, Northern Territory University and Northern Territory Employment and Education Authority in 1995-1996;
- Informing New Apprenticeships through Indigenous Specific Pilots of the AVTS commissioned by DETYA and undertaken by RIPVET, the Deakin Institute of Koorie Education and the Northern Territory University Centre for Teaching and Learning in Diverse Contexts in 1997-1998;
- Case Studies in New Learning Technologies commissioned by Open Training Services (OTS) and undertaken by RIPVET in 1999; and
- Support Services for Flexible Delivery commissioned by TAFE Frontiers and undertaken by RIPVET in 2000-2001.

The research approach reported here began through collaboration with colleagues in the Northern Territory, in particular Allan Arnott, Greg Wearne and Terry Clarke. This early work was the basis of a paper Allan Arnott and John Henry presented at the first AVETRA conference in Sydney entitled 'VET research through partnerships with stakeholders'.

The approach was also influenced by the input of Indigenous Australian research colleagues involved in the early projects. These researchers were Wendy Brabham, Alice Rigney and Pat Torres.

Djama and VET

In 1995, Henry and colleagues in the Northern Territory won an ANTARAC project to investigate the most appropriate forms of VET delivery to rural and remote Aboriginal communities in the Northern Territory. The project proposal specified six detailed case studies of a training program implemented by a training organisation in the NT to an isolated Aboriginal community. The case study sites were spread across the NT from the Tiwi Islands to North Eastern Arnhem Land down to the Centralian communities out from Alice Springs. As a consortium the group had considerable resources at their disposal to conduct this form of research. But in addition, the research proposal objectives included as an outcome an attempt to provide generalised policy guidelines for the improvement of the delivery of training to Indigenous Australian communities.

The research was implemented through a dual structure: a core group of researchers and six teams of case study researchers. The core group worked through the key themes that they wanted addressed through the case studies, then workshopped these with the case study researchers. But the balance of direction from the core group to the case study researchers was in favour of the researchers telling the story from their case study site, as they responded to their informants without undue encumbrance from the core group's thematic dictates. The case study researchers then undertook their fieldwork and wrote up their case studies. These case studies were then workshopped by the total group to identify commonalities that could be taken up to support particular generalised arguments on the most appropriate ways to deliver training to Aboriginal communities in rural and remote communities.

The product of this research project was a two-volume report published by NTU Press entitled 'Djama and VET: exploring partnerships and practices in the delivery of VET courses in rural and remote Aboriginal communities'. The first volume contained the generalised argument with references to the case studies, and the second volume contained the six case studies in full detail. It was the task of the core group of researchers to write the generalising argument in Volume I, a task that proved difficult but not impossible given the disparate character of each case study.

Informing new apprenticeships

This project involved the same set of fundamental methodological issues as had been faced in the '*Djama and VET*' project. DETYA required an evaluation of five sites in which AVTS pilot programs had been implemented through the early to mid-1990s in a way that clearly told the story of what had happened on the ground, while at the same time providing generalisable outcomes that would inform new policy development and implementation. Once again the research sites were geographically disparate, ranging across Australia from Adelaide in the south, to the Kimberley in the north and to Sydney and Cherbourg in the east. It was agreed to conduct the project through a case study method but with a firmer structure, in order to enhance the potential for generalisable outcomes. As before, the project involved initially a core group of researchers and case study researchers. But this structure broke down early in the life of the project, as members of the core group also became members of case study teams. Thus all researchers in the project became involved in the case study fieldwork.

The other key development in the approach taken with this project was the detailed preparation undertaken prior to the fieldwork. The core group met with a DETYA reference group on two occasions to thrash out the issues that would be addressed by all of the case studies. The outcome of this preparatory stage was a five-page document of relevant questions and topics covering:

- AVTS Pilot Project Context
    - Training culture
    - Community ownership
    - Nature of the 'work'
    - Changes in context

- Training Project
    - Training program
    - Training provider
    - Employers
    - Trainees
    - Community

- State Training Authority

- Informing New Apprenticeships.

The list of questions under each subheading culminated in a summary question. For example, the list of six questions related to 'The nature of work' subheading culminated in the following summary question:

Summary question: To what extent was the nature of the work by which the AVTS pilot was framed, determined or influenced by the Indigenous community's own cultural traditions and the community's own cultural and economic development agenda?

This document then became the framework for structuring the case study research in each of the disparate sites chosen by DETYA for the project.

As before, the outcomes of this project were the stand-alone case studies for each AVTS pilot site and, as a separate volume (Henry et al 1999), the overarching report of the project within which the generalising policy-oriented arguments were developed, with the case studies as the evidentiary base. Given that there was a clear sense of integration with respect to the issues addressed across the case studies as a collection, the synthesis work associated with the overarching report was more straightforward than in the earlier project.

In 1998, in an internal document to the research team of the Informing New Apprenticeships Project, we wrote the following:

> The research approach that we have been developing attempts to work at both the level of fine-grained individual, case studies and at the level of identifying meta-issues that are supported from a collection of such case studies. This approach relies on a team of researchers working at both levels and interacting on the research as it unfolds through the case studies to the synthesis of issues.

In commenting on the products of this research approach, we wrote:

> The final issues report plus the accompanying case studies then represents a coherent whole in a research and publishing sense. Readers have the opportunity to read the 'whole' and respond to its recommendations based on the open and accessible nature of the research reports including the case study narratives.

Case studies in new learning technologies

In 1999 Peter Smith and John Henry had the opportunity to further develop the GCS research method. OTS asked these researchers to develop a research model for an investigation into the application of new learning technologies in the VET sector. The project was intended to set up the parameters and method for this investigatory project.

With this project, Smith and Henry were able to refine the research approach, while at the same time develop the detailed background and preparatory framework documents necessary for the implementation of the case study research focusing on selected new learning technologies sites in the VET sector. The product from this OTS project was a detailed report entitled 'Case studies in new learning technologies Stage 2: An initiating research project for generalising from case studies' (Smith and Henry 2000).

The report contains a detailed description of the approach, and included an explanation of a case study reporting framework and detailed step-by-step account of the research protocol for generalising from case studies. The description of the approach began as follows:

> Generalising from case studies is an approach to applied research that addresses what are often seen to be conflicting demands on research and development funding agencies. These are the requirement to support research projects that will produce general findings of the type that can inform policy development, and the requirement to fund projects that provide detailed localised information of the type that informs the professional development needs of practitioners in the field.
> (Smith and Henry 2000, p 6).

And later:

> The methodological problem for … research teams is that of undertaking case study research involving different researchers researching different

> sites in such a way that the resultant case studies are compatible to the synthesis of generalisable issues and themes: issues and themes supported through clear referencing back to data within the case studies. (Smith and Henry 2000, p 6)

The OTS 'Case studies in new learning technologies' report then introduced the concept of a Case Study Reporting Framework as a procedure for tackling this problem.

> The problem … is addressed by identifying, as a commencing step … an initial list of research issues to guide the case study research process. The intention is to develop from the initial list of research issues a 'case study reporting framework'. This framework becomes the central instrument to the Generalisation from Case Studies approach to research and development as it is the case study reporting framework which will maximise the comparability of the case study research component of projects while not imposing undue limitations on the breadth or depth of individual case studies. (Smith and Henry 2000, p 6)

The case study reporting framework begins with an 'initial issues list'.

> This initial issues list can be developed from a review of recent research reports relevant to the focus of the research project. The outcome at this point in establishing the research project is a framework of key issues identified from prior research relevant to the field and the focus of the research project. This framework of key issues becomes the set of reference issues to be researched through each of the case studies. Case study researchers take the framework of issues as a set of lenses through which they then structure their case study research. In this way, the initial framework of key issues informs each case study researcher and becomes, over the course of the project, a case study reporting framework. (Smith and Henry, pp 6-7)

Additionally,

> This framework can be added to and refined as the research project gets underway and as researchers and the project management group review progress. The case study reporting framework is not a rigid document of fixed issues at the outset but it evolves as the research project itself evolves. The important methodological point is that by the time each case study in the project is commenced, the case study researchers participating in the project will be 'testing' the same set of key issues within the context of their case study sites and reporting through the genre of case study research but each addressing, where relevant to their case, the same set of research issues. (Smith and Henry 2000, p 7)

Smith and Henry then developed a Case Study Reporting Framework for the New Learning Technologies Initiating Project. A literature review was produced from contemporary research into the use of NLT involving vocational learners in industry, community and VET sectors in Australia and, where relevant, with reference to selected overseas examples. Then, based on this review, a case study reporting framework was developed for use in the conduct of case study research into the use of NLT in industry, community and VET sectors. In addition, OTS was provided with an evaluation methodology for use during and at the conclusion of the anticipated case study research project to come.

The detailed outcomes of this OTS-funded project are accessible through the Project Report now managed by TAFE Frontiers.

Support services for flexible delivery

We now come to the research project in progress. In 2000, TAFE Frontiers commissioned RIPVET to undertake a research project in which the following stages would be completed in sequence:

- Develop a model of organisational preparedness for flexible delivery;
- Produce case studies of five registered training organisations within which significant advances are being made in the development of organisational support services for flexible delivery;
- Write a thematic report based on the five case studies; and,
- Develop professional development support materials based on the research outcomes.

A model of organisational preparedness for flexible delivery

The model of organisational preparedness for flexible delivery was developed based on a review of the contemporary literature in the area of organisational structures, systems and functions required to support vocational learning through flexible delivery and on-line learning. This review identified three major themes relevant to the study:

- Vet learner attribute awareness
- Enterprise attribute awareness; and
- RTO preparedness for flexible delivery.

In addition, six critical success factors were identified from the literature as relevant to the development of RTO support for flexible delivery:

- RTO has a preferred model as flexible provider – a vision
- Flexible delivery support procedures in place – management, administration and teaching/learning systems
- Appropriate NLTs identified for design and delivery
- Quality courseware production capacity
- Professional development programs involving a differentiated staff skill development strategy
- Explicit coordination and monitoring of flexibly delivered program strategies.

Through consultations with TAFE Frontiers personnel, the third theme, 'RTO preparedness for flexible delivery', was further refined into four highly detailed sub-themes. These sub-themes were:

- Does the RTO have a framework for its overall development as a 'flexible delivery-oriented' training provider?
- Has the RTO addressed the skill needs of its staff for effective flexible delivery?
- Taking the perspective of the learner-as-client, a number of pathways for engagement with the RTO can be identified – are client-focused elements in

place within the RTO's systems to support flexible engagement at the level of initial contact and counselling, support and assessment?
- How are the RTO's internal services prepared to support its flexible delivery operation as a 'whole-organisation' approach?

Organisational analysis matrices

The next step was to develop organisational analysis matrices in which the six critical factors were framed against the RTO preparedness theme and the specific elements of its sub-themes. These matrices aligned the critical success factors with elements of an RTO's internal organisational services, client pathway and staff support. By way of example, the organisational matrix matching the critical success factors with internal organisational services is included in this paper as Appendix 1.

From this organisational analysis based on the literature review and consultations, it was then possible for the research team to draw up a case study reporting framework for the fieldwork stage of the project.

This framework extrapolates from the organisational analysis matrices to identify key issues to be examined through the five case study sites – issues relevant to the organisational support of flexible delivery. It is these identified issues which will now guide the case study researchers in their fieldwork and in the writing up of each case study.

Support services for case study reporting framework

The case study reporting framework for this project has three sections.

- Flexible delivery as an organisational mission;
- Flexible delivery and the learner-as-client; and
- Flexible delivery and staff support.

Within each section, issues associated with each relevant critical success factor are listed. For each critical success factor included in each section, there is a concluding summary question. There is also an overarching summary question for the whole section as well.

The full reporting framework is not included here in this paper, but in order to provide a flavour of the form the framework took as a result of this careful preparatory work, the section on staff support is included in this paper as Appendix 2.

Case studies

To date, the fieldwork for three of the five case studies has been completed. We are presently writing the first drafts of these case studies.

Conclusion

In this paper we have provided details of a research method we call 'Generalisations from Case Studies', tracing its development through a series of VET research projects from 1995 through to the present. We have also provided details of this approach to research in action in a research project that is still in progress.

We believe that this approach to research is highly relevant for the VET sector where the connection between research outcomes and both policy development and practitioner professional development can often be quite tenuous. Generalising from Case Studies research is capable of producing quality research products that can be simultaneously influential in the policy development sphere as well as being readily translated into professional development materials relevant to the world of VET practitioners.

References

Ellis B and Taylor A (1998) Reeled in - to a real job? Case study of Aboriginal tour guides traineeship, Port Augusta SA, 1996-1998. DEETYA, Commonwealth of Australia.

Henry J A, Arnott A, Clarke T, Dembski L, Langton M and Wearne G (1998) Djama and VET: exploring partnerships and practices in the delivery of VET courses in rural and remote Aboriginal communities, volumes 1 and 2. Darwin: Northern Territory University Press.

Henry J A, Brabham W and Arnott A (1999) Developing best practice with Indigenous new apprenticeships: final report. DETYA, Commonwealth of Australia, Canberra, Australia.

Henry J and Parsons J (1998) To-ing and fro-ing. Case study of the traineeship in Indigenous television production, 1995-1997. DEETYA, Commonwealth of Australia.

Ingra C and Clarke T (1998) Constructions of work and training. Case study of construction industry traineeship at Cherbourg. DEETYA, Commonwealth of Australia.

Rigney A and Brabham W (1998) Towards a new way: stage 4. Case study of the Aboriginal and Torres Strait Islander education worker traineeship, 1995-1998. DEETYA, Commonwealth of Australia.

Smith P J and Henry J A (2000) Case studies in new technologies. TAFE Frontiers, Melbourne, Australia.

Torres P and Arnott A (1998) Growing it up in the community. Case study of the essential services maintenance operators traineeship. DEETYA, Commonwealth of Australia.

Appendix 1: Organisational analysis matrix – critical success factors X internal organisational services

Critical success factors	Internal services of RTO			
	Client services	**Courseware services**	**Facilities and production services**	**Business services**
1. Preferred model as a flexible provider: a vision				
2. Flexible delivery support procedures in place through	Student services Learning skills services Library services Student administration services Off-campus services			Business advisory services Resource planning services
3. Appropriate NLTs identified for design and delivery			Information technologies services Audiovisual communication services	
4. Quality courseware production capacity		Quality services		
5. Professional development programs involving a differentiated staff skill development strategy		Staff development services		Human resources Management services
6. Explicit coordination and monitoring of flexibly delivered programs strategies		Quality services		

Appendix 2: Case study reporting framework

Flexible delivery and staff support

Critical success factor 2: Flexible delivery support structures in place: management

1. *Business advisory services – staff support: legal advice*

- What are the avenues for providing advice to staff on copyright matters?
- How accessible is legal advice for staff?
- Are the procedures enabling approval of major contracts accessible and widely understood?

2. *Resource planning services: staff support: budget allocation*

- What are the mechanisms that bring the financial requirements of the flexible delivery operations to the attention of the 'whole organisation' operational planning processes?
- Is it clear in the provision of financial resources within the organisation that these are expected to facilitate the strategic development of the organisation as a flexible provider? Is this the effect in practice?

Critical success factor 2 summary question:
What are the significant characteristics of management services of the RTO which are supportive of staff delivering flexible training programs?

Critical success factor 3: Appropriate NLTs identified for design and delivery

1. *Information technology services – staff support: technical support*

- How accessible are the IT services to the other operational staff involved in the flexible delivery of training programs?
- What forms of IT technical support are available to other staff?
- Is the IT infrastructure adequately supporting the flexible delivery operation?
- How are NLTs evaluated for their effectiveness in flexibly delivered programs?
- How are new developments in NLTs introduced to the RTO and selected for application in flexibly delivered training? Are designated staff involved?

2. *Audiovisual communication services – staff support: technical support*

- What is the relationship between the audiovisual communication services and the other operational staff involved in the flexible delivery of training programs?

- How are audiovisual communication design features made available to other staff and integrated into flexibly delivered learning materials?

Critical success factor 3 summary question:
How supportive is the IT and AV infrastructure to staff needing technical assistance for design and delivery of flexible training programs?

Critical success factor 5: Professional development programs involving a differentiated staff skill development strategy

1. Human resources management services – staff support: professional development

- Are there processes in place that identify management-level skill needs relevant to the development of a flexible training organisation? What are these?
- What provision is there for the skill development of senior executives and education and training managers? Is this provision relevant to the development of a flexible training provider?
- Are the management-level training and development programs and strategies evaluated according to flexible provision outcomes?

2. Staff development services – staff support: professional development

- Are there processes in place that identify operational-level skill needs relevant to the development of a flexible training organisation? What are these?
- What provision is there for the skill development of teachers, technical officers, library staff, clerical and administrative staff, IT staff, graphic artists and instructional designers, marketing staff, counsellors, student association staff, and other support staff? Is this provision relevant to the development of a flexible training provider?
- Are the operational-level training and development programs and strategies evaluated according to flexible provision outcomes?

Critical success factor 5 summary question:

- How appropriate are the professional development processes and programs of the RTO in providing staff across the organisation with new skills relevant to the RTO's development as a flexible training organisation?

Staff summary question:
What are the key staff-related organisational support services for flexible delivery in the RTO and do these form an integrated support services system?

Contact details

John Henry
Ph: +61 3 5227 2073
Email: jah@deakin.edu.au

Abstract

Action learning as professional development for vocational educators

Anne Herbert
University of South Australia

On-going professional development of educators is an essential element of maintaining quality in VET. In the Australian VET sector, throughout the 1990s, action learning has been promoted for professional development. It is still named and promoted as a 'work based learning' strategy in more recent staff development material. The wider literature documents a variety of ways that action learning can be used. So how is action learning used by educators in our sector? Based on participation in a number of action learning projects, this paper argues that action learning is used in multiple ways. The evidence suggested that three of these are (1) for professional implementation, (2) for professional assimilation and (3) for professional praxis. Each of these uses takes a different view of knowledge, of the professional vocational educator and desired outcomes of action learning. Therefore, each use promotes a different view of professional learning, the pre-requisites for action learning, the participant role, facilitator role and what is important to evaluate. They each offer a different potential for professional development and are associated with different problems. This paper articulates and discusses these three uses, and how they may effect quality improvement in the VET sector.

BEST COPY AVAILABLE

Training packages: the scientific management of education

John Hunter

Adelaide Institute of TAFE, South Australia

The main thesis of the paper is that Training Packages are management tools that are grounded in a particular school of management theory: Scientific Management. It is proposed that Training Packages have little to contribute to the learning process and are, in effect, highly detailed job descriptions.

An overview of Scientific Management provides a context for the ensuing discussion in which the link between Training Packages and Scientific Management is explored. The parallels between Scientific Management and Training Packages are considered in terms of the themes of 'specialisation'; 'deskilling and assessment of skill/knowledge'; and 'quality'.

The relationship between Scientific Management and the Australian Qualification Framework and procedures such as Recognition of Current Competencies is also considered.

Scientific Management is identified as providing the conceptual foundation of Training Packages and following the questions will be addressed: What are the main features of Scientific Management and how are these reflected in Training Packages? What changes in policy direction should be contemplated in view of the influence of Scientific Management?

Scientific Management

Frederick W Taylor (1856-1915), an American Engineer, founded Scientific Management. Task simplification, the aim of which is to increase productivity, is at the core of this theory. Taylor, however, was not the first to recognise the 'simplification-productivity' connection. Adam Smith (1723-1790) is credited with this. Smith observed that the 'division of labour' could lead to dramatic increases in output. He used the example of pin-making to illustrate this point:

> … a workman not educated to this business … could scarce … make one pin a day, and certainly not make twenty. But in the way in which this business is now carried on, not only is the whole work a peculiar trade, but it is divided into a number of branches. One man draws out the wire, another straightens it, a third cuts it … the important business of making a pin, is, in this manner, divided into about eighteen distinct operations … (Smith 1910, p 5)

Smith also considered the gains in productivity that resulted from the division of labour. Rather than a single pin, he concluded the individual worker could produce some 4,800 pins a day.

These themes find expression in Taylor's work, but rather than pin-making, his interest was shovelling:

> By 'science' Taylor means systematic observation and measurement, and an example ... that he often quotes is the development of the science of shovelling. The scientific study of shovelling involves the determination of the optimum load that a 'first class man' can handle with each shovelful. Then the correct size of shovel to obtain this load, with different materials, must be established. Workers must be provided with a range of shovels and told which one to use. They must then be placed on an incentive payment scheme ... (Pugh and Hickson 1983, p 100)

Other aspects of Taylor's theory are alluded to in the above. The reference to '*tell* workers which shovel to use' concerns the view that management must control the planning of work, down to its minutiae. Discretion, and perhaps even the expectation that one should 'think', must be eradicated. Second, the idea of 'incentive payments' refers to schemes of 'payment by results', or units produced in a given time. In these schemes, the greater the output, the higher the remuneration.

The quotation also hints at the values that underpin Scientific Management. For example, Taylor also conducted experiments on loading pig-iron and said:

> One of the first requirements for a man who is fit to handle pig-iron as a regular occupation is that he shall be so stupid and so phlegmatic that he more nearly resembles an ox than any other type.
> (quoted in Bell 1960, p 233)

This charitable attitude was shared by Frank (1868-1924) and Lillian Gilbreth (1878-1972), to whom we are indebted for 'time and motion study'. The Gilbreths, contemporaries of Taylor, gave the following responses to questions about Scientific Management:

> Does it not make machines out of men?
> Answer: It is the aim of Scientific Management to induce men to act as nearly like machines as possible.
> Is it not especially hard on the 'weaker brothers'?
> Answer: Yes, if 'weaker brothers' means unwilling incompetents.
> (quoted in Spriegel and Myers 1953, p 8)

The parallels extended to personality types, as evidenced by the following descriptions of somewhat obsessive-compulsive behaviours:

> Taylor split his world into its minutest parts ... When he walked, he counted his steps to learn the most efficient stride. Nervous, highstrung ... he was a victim all his life of insomnia and nightmares, and fearing to lie on his back, he could sleep in peace only when bolstered upright in a bed or in a chair. He couldn't stand the sight of an idle lathe or an idle man. He never loafed and he was going to make sure nobody else did.
> (Spriegel and Myers 1953, p 8)

Similarly, Frank Gilbreth:

> ... learned to simultaneously use two shaving brushes to put on shaving cream, thereby saving seventeen seconds. When he tried shaving with two razors, the process took forty-four seconds less than with one razor. Unfortunately, the bandages to the resultant cuts took two minutes to

> apply ... the loss of two minutes, not the cuts, made him abandon the use of two razors. (Bartol et al 1999, p 51)

Scientific Management encountered difficulties in practice - workers went on strike in one of the first organisations that systematically applied Scientific Management principles (Bartol et al 1999, p 51). Some of the complications engendered by Scientific Management were: a need for coordination; alienation of employees; and difficulty balancing quality against the dominant theme of quantity.

Coordination relates to Taylor's view that management must control work planning. However, the application of Scientific Management principles poses a significant problem: once a process has been fragmented, one is nonetheless faced with the need to stick all the bits back together again into a coherent whole. To achieve this, centralised synchronisation is required. Should it be lacking, a number of problems arise: duplication, variations in standards and inconsistencies, to mention a few. Industry is familiar with the problems inherent in the production-line method. Various experts are required to coordinate activity to ensure the production process is 'kept in balance'. This can entail significant costs- some of which are 'human'.

Disaffection is a facet of work simplification, which arises largely from deskilling. Such factors as high turnover and absenteeism rates can ensue. Industry has attempted to overcome some of these problems by introducing different forms of work, in which multi-skilling is an essential element.

The emphasis in Scientific Management is on production and output; as indicated, this is reflected in schemes of 'payment by results'. This is not to suggest that quality is totally disregarded. For example, in industry, Quality Circles are used to compensate for the focus on quantitative, as opposed to qualitative, objectives. The point here, however, is that quality often 'comes a poor second best' in systems founded on Scientific Management.

Taylor's theories have been associated with the broader notion of 'Fordism' - a reference to the automotive company - that pioneered systems of mass production.

How then are these various principles and pitfalls of Scientific Management manifested in Training Packages?

Training packages and scientific management: the parallels

The relationship between Scientific Management and Training Packages will be examined in terms of 'specialisation'; 'deskilling and assessment of skill/knowledge'; and 'quality'. Before this analysis, a brief overview of Training Packages is provided.

Training packages: an overview

A Training Package consists of 'endorsed' and 'non-endorsed' components. We will confine ourselves to the endorsed components: competency standards, or Units of Competency; Qualifications; and Assessment Guidelines.

A competency 'Comprises the specification of knowledge and skill and the application of that knowledge and skill to the standard of performance required in the workplace' (Australian National Training Authority 1998, p 15).

Qualifications involve 'packaging' competencies in accordance with the Australian Qualifications Framework. This provides a structure for all recognised qualifications, from the Senior Secondary Certificate to a PhD. For Training Packages, the relevant qualifications are the Certificate I, II, III and IV and the Diploma and Advanced Diploma (Australian National Training Authority 1998, p 26).

Assessment consists of five elements, including the qualifications required of Assessors and guidelines for designing and conducting assessments. The role of an Assessor is related to what has been variously labelled 'Recognition of Prior Learning', 'Recognition of Current Competencies', and 'Skills Recognition'. One of these has been described thus: 'Recognition of prior learning focuses on identifying the endorsed industry/enterprise competency units currently held by individuals as a result of formal and informal training' (Australian National Training Authority 1999b, p 29).

Thus, an Assessor, through a process of evidence gathering, may issue qualifications based on the skills/knowledge a person has acquired. To be entitled to perform this activity, Assessors must have the relevant vocational competencies at least to the level being assessed, and two assessment units of competence from the *Assessment and Workplace Training* Training Package (Australian National Training Authority 1998, p 20).

Specialisation

The first Training Package was endorsed in July 1997 and there are currently some 60 packages, which are either industry or enterprise based.

This represents the first level of specialisation, as it implicitly assumes that knowledge/skills are industry/enterprise specific. One could perhaps add that Training Packages reform seems to assume that the only thing worth learning about is work.

Additional fragmentation often occurs within Training Packages. For example, the *Textiles, Clothing and Footwear Training Package* consists of sixteen volumes covering such industry sub-sectors as 'Dry Cleaning Operations' and 'Footwear Repair'. The Package contains some 300 Units of Competency, including a number that have been 'imported' from other Training Packages (Australian Light Manufacturing Industry Training Advisory Board 2000, p 1).

Units are further subdivided into 'Elements' and 'Performance Criteria'. In order to assist with the understanding of these, a 'Range of Variables' and 'Evidence Guide' is also provided. The Range of Variables identifies 'the range of contexts and conditions to which the Performance Criteria apply' and the purpose of the Evidence Guide is to assist with the 'interpretation and assessment of the unit' (Australian National Training Authority 1998, p 12).

An example will help illustrate the relationship between all of these Training Package paraphernalia. 'Wash Dishes' is a Unit and the Elements are: 'Prepare to wash dishes'; 'Wash dishes'; 'Dry dishes'; and 'Store dishes'. Performance Criteria include 'correct amount of dishwashing liquid/powder is used'; and 'correct washing implements are used'. The Range of Variables incorporates 'removing blemishes from pots and pans may require pots and pans to be either scrubbed by hand or soaked and rewashed' and the Evidence Guide makes this indispensable contribution – 'resource requirements include equipment such as dish washers'! (Community Services and Health Training Australia 1999a, p 66).

It might be argued that a simplistic example has been selected. However, there are other instances in Training Packages of what might be described as a 'limited, task focus'. Thus, there are Units of Competency for 'Ride courier/delivery bicycles' (Transport and Distribution Training Australia 1997, p 106); 'Climb small trees' (Rural Training Council of Australia 1998, pp 2-56); 'Prepare a bed for occupancy' (Community Services and Health Training Australia 1999a, p 55); and 'Wash and squeegee glass surfaces to remove all visible dirt and grime' (Property Services Training Australia 1998a, p 79). In relation to this last Unit, one wonders if there would be much point in removing 'invisible' dirt and grime.

In making these observations, it is not the author's intent to disparage either the skills involved, or those who exercise them. Nonetheless, we need to ask ourselves if the level of specification is not very similar to measuring shovelling or, for that matter, shaving with two razors. The principles are the same. The fundamental problem is that the principles are inappropriate for the purpose to be served - that being learning. The following illustrates this point:

> If a job is broken into fragments ... learning to integrate them into one smooth, continuous process could create a problem. Learning is also inhibited if the segments to be mastered are too small or meaningless.
>
> The Supervisor may have to encourage the learner to try out what seems at the outset to be an impossibly large segment; but it is more efficient in the long run for the trainee to make many mistakes, trying to master a logically constituted unit than to concentrate on learning the parts as if each were to be performed separately.
> (Sayles and Strauss 1981, p 206)

As the above suggests, the consequences of relying on an industrial model - and an outmoded one at that - to perform an educational function are potentially very damaging. This is recognised in a recent Senate report:

> The atomised and apparently menial tasks required of workers leads to the view that those holding vocational skills are unable to think intelligently or creatively, or to take initiative. Here, vocational education, operating on this set of assumptions, serves the dictates of an essentially Fordist model of production which subordinates creativity and intelligence to the performance of a limited and highly structured range of tasks.
> (Senate Employment, Workplace Relations, Small Business and Education References Committee 2000, p 4)

The 'performance of a limited and highly structured range of tasks' is precisely what Training Packages are all about, as they are premised upon Scientific Management assumptions. The lack of coordination that can be symptomatic of this approach is evident in Training Packages. For example, there is a proliferation of very similar - if not duplicated - Units. This creates, amongst other things, a record keeping nightmare.

Earlier, 'variations in standards', 'incompatibility' and 'inconsistencies' were raised as additional problems associated with Scientific Management. These issues are also encountered in Training Packages. There is significant variation in the quality of Training Packages and incompatibility and inconsistencies become evident when the importation of Units of Competency from one Training Package to another is considered.

As noted, multi-skilling has been one response to the problems generated by Scientific Management. One purpose of multi-skilling is to broaden the range of skills of employees. Similarly, there has been a call to give greater emphasis to broader, generic skills to compensate for the 'narrow, task-based focus' of Training Packages (Senate Employment, Workplace Relations, Small Business and Education References Committee 2000, p 24).

There is a mechanism within Training Packages that attempts to address this:

> Many stakeholders believe that the National Training Packages do not provide adequately for the achievement of the broader, generic skills, known as 'soft skills' or the Key Competencies. The Key Competencies are a set of generic competencies that people need for effective participation in the workforce.
> (Senate Employment, Workplace Relations, Small Business and Education References Committee 2000, p 25)

There are two problems with the notion of Key Competencies.

First, the level of 'atomisation' wrought by Training Packages is such that Key Competencies add to the level of complexity, rather than address it in a constructive manner. Far from offering a solution, Key Competencies have become part of the problem.

Second, the Scientific Management paradigm is incompatible with 'soft skills' or affective/interpersonal domain. For example, there are Units of Competency that have statements such as:

> Individuals or groups behaving in a suspicious and/or unusual manner are identified and monitored according to agreed assignment instructions (Property Services Training Australia 1998b, p 137);
>
> People are treated with integrity, respect and empathy (CREATE Australia 1999, p 528);
>
> Enjoyment and fun are promoted (Community Services and Health Training Australia 1996, p 110);
>
> Communication with children will vary according to the age of the child - for babies and infants, some examples are:

- worker responds to non-verbal cues and decides whether a response is required

- imitation or reflection of babbling and cooing (Community Services and Health Training Australia 1996, p 110).

The above outputs are intangible and do not lend themselves to Scientific Management forms of measurement. How, for example, does one objectively assess what constitutes a level of proficiency in 'identifying suspicious behaviour', 'treating people with integrity, respect and empathy', or 'imitating babbling and cooing' to warrant the determination that a person is competent? The simple answer is 'you can't', and attempts to do so verge on the absurd.

Deskilling and assessment of skill/knowledge

As previously mentioned, Training Packages encompass the notions of Assessor, Recognition of Current Competencies and the Australian Qualification Framework.

It will be recalled that the only *educational* qualification required of an Assessor is that s/he holds selected assessment Units from a particular Training Package. This represents a significant diminution of past educational requirements. The expectation would now appear to be that those involved in the delivery of vocational education are no longer expected to educate - or, for that matter, train - but rather merely 'assess and record'. This represents a level of workforce deskilling of which Taylor himself would be proud.

This deskilling process is inexplicably linked to the concepts of simplification and recognition of competencies. For example, the simpler the thing to be assessed, the greater the justification for reducing the qualification level, and thus remuneration, of the person undertaking the assessment.

Simplification also lends itself to non-demanding methods of making recognition judgments. Assessment for recognition is often a 'checklist' exercise of dubious validity and reliability. Further, the process is retrospective: the focus is on the skill/knowledge 'acquired' rather than 'required'. This creates a significant risk that the need to develop new areas of skill/knowledge gets lost in bureaucratic paperwork which is rooted in the past.

A related problem is that recognition processes are product orientated. The aim is to determine 'what' skill/knowledge a person has; the question of 'how' that skill/knowledge was realised is, in essence, considered irrelevant.

However, learning is as much about the means or process by which skill/knowledge is acquired, as it is about the ends or products of that process. It is about being inspired to seek out learning opportunities. It is also about being aware that the relationship *between* different domains of skill/knowledge can be as important as 'competence' within a discrete area. We ignore these more subtle aspects of learning at our peril. If we continue headlong down the Training Package path, we may well end up with a workforce of automatons: people who are proficient in narrow, specific fields but unable to 'think for themselves', as the education system failed to emphasise the importance of the intrinsic value of learning, and the significance of the relationship between different bodies of skill/knowledge.

Given the foundation of Units of Competency upon which the Australian Qualifications (AQF) Framework is built, it could be anticipated that this structure would have some shortcomings. One of these is the relationship between training and jobs that some Training Packages establish. For example, one Training Package contains the following statement:

> Employees in positions at the Operator level in the industry can access qualifications at either AQF Certificate II level or AQF Certificate III level. The AQF Certificate IV level encompasses the competencies expected of supervisors, team leaders and site coordinators. An AQF Diploma is the entry point for management training ...
> (National Mining Industry Training Advisory Body 1998, p 15)

As competencies are work-based, how then does the Operator, who aspires to a promotional position, attain the competencies of those positions? It's a Catch-22 - if you haven't got the job in the first place, you cannot demonstrate the competencies, and, no doubt, you can't get the job until you exhibit that you have the competencies required for the position!

It could thus be argued that the qualification framework 'locks employees in' to an existing occupational hierarchy and reinforces organisational rigidity and educational inequality. This seems to be the converse of the Training Package rhetoric: 'All the endorsable components should ... support broad and flexible career paths, transferability, portability, varied learning pathways and high quality training and assessment outcomes ...' (Australian National Training Authority 1998, p 8).

There is also a problem of comparability of qualifications. For example, it is possible to attain a Certificate III in Asset Maintenance - Cleaning Operations (Property Services Training Australia 1998a, p 8). Under the framework, this has a status equivalent to that of say, a Certificate III in Information Technology. Whilst not wishing to devalue cleaning, would the Information Technology Graduate not have a legitimate argument should s/he claim that her/his qualification should have a somewhat elevated status on the basis that cleaning does not demand the same level of skill/knowledge and rigour (intellectual or otherwise) as computer programming? The structure has no means of differentiating the content of what is learned, or comparing the standards of one qualification against another, and it should.

When one combines the nature of some of the Training Package qualifications with the concept of recognition, some interesting scenarios come to mind - we could have credentialism gone berserk! For example, one could envision that every person in the country with domestic duties would be entitled to some level of qualification in cleaning; they need only be assessed. The following quotation from a recent newspaper article is relevant in this context:

> We need to divorce ourselves from the crippling and delusive idea that education is a service industry similar to dry-cleaning, identical with the material arrangements through which we seek to provide it.
> (Maskell 2000, p 31)

As indicated at the outset, this is one of the major problems with the Training Package concept: it confuses education, which can be employed to enhance understanding about jobs, with 'the material arrangements through which we seek to provide education', these being jobs - or the descriptions of those jobs - themselves.

Quality

All of the matters raised so far point to the issue of quality. However, one additional topic, which represents an indirect link between Scientific Management and Training Packages, deserves mention. This is the emphasis on production and the related practice of 'payment by results'. It is important to question the dominance of these, as they create a strong temptation to 'cut quality corners'.

Funding arrangements in vocational education are based on units of production, with the 'number of hours generated' being the basic measure of output. For example, the Senate report referred to earlier indicates that the measure of 'Assessable enrolment-successfully completed Annual Hours Curriculum' increased from 171, 983, 920 to 183, 838, 731 from 1998 to 1999 (Senate Employment, Workplace Relations, Small Business and Education References Committee 2000, p 19).

Quality, however, is the main theme of the report:

> The majority report contains 28 recommendations to the Government. These go to the heart of restoring quality in vocational education and training ... focusing mainly on strengthening institutional arrangements which ensure compliance with quality control processes.
>
> (Senate Employment, Workplace Relations, Small Business and Education References Committee 2000, p 9)

These arguments are not to deny the need for some form of accountability. However, a better balance between indices of quantity and quality is urgently needed - this is something with which the authors of the Senate report would, in all likelihood, concur.

As an aside, one suspects that part of the problem here is one of 'ease'. Quantitative indicators, such as hours, are easy to measure, whereas qualitative factors, particularly in a field as elusive as 'education', are much more difficult to identify. This engenders a tendency to focus on the easily measurable. The problem here is that we run the risk of assuming that simply because something is easy to measure, it is important - a status it may well not deserve!

Conclusion

This analysis has obviously been critical and, in conclusion, it seems reasonable to consider what constructive changes might be made.

One is tempted to 'discard the lot'. However, this would be to deny the efforts and goodwill of what is probably a small army of Training Package writers and reviewers - not to mention the cost.

As has been emphasised throughout, the core of the problem is that Scientific Management provides the conceptual underpinning of Training Packages. This is a fundamental flaw that needs to be more widely recognised, and then acted upon. In practical terms, it is suggested that:

1. A moratorium be instituted in relation to the implementation of any new Training Packages and/or any additions, addendums, or any other further development of them.

2. A review of Training Packages be instituted. This would be a holistic review, encompassing all Training Packages, and the interrelationships between them, with the purpose of:

    - eliminating the duplication in Units of Competency between, and within, Training Packages;

    - rewriting all Units of Competency in much more generic terms to overcome the restrictive bias towards the performance of narrow tasks. This revision is of particular importance in the area of so-called 'soft skills'

3. Much greater emphasis be given to qualitative indicators of performance in vocational education. This could be largely accomplished through implementation of the recommendations of the Senate Employment, Workplace Relations, Small Business and Education References Committee.

The idea of a nationally recognised qualification structure is excellent. However, a competency-based curriculum is not essential to such a structure. The same can be said for processes of recognition. Both of these useful initiatives can exist in the context of a broad, rather than competency-based, curriculum.

It seems in keeping with some of the themes in this paper to end on a lighter note. There is a Unit of Competency entitled 'Work with Crocodiles' (Seafood Training Australia 2000, pp 4-103), and in the Range of Variables there are a number of indicators that provide assistance with the assessment of 'abnormal behaviour'. Some of these indicators appear below, along with italicised comments, these being those of the author:

> Abnormal behaviour or other indications of health problems:
>
> - inactivity
>
> *(to assess, prodding/poking is unavoidable - for this purpose, however, it is highly recommended that an implement, such as a long stick and/or broom handle, be employed);*
>
> - loss of coordination
>
> *(to assess, determine if subject repeatedly trips over logs and/or gets hopelessly tangled up in swamp vegetation);*
>
> - isolation from other crocodiles .

(to assess, determine if subject regularly fails to attend social gatherings, such as the maiming of unsuspecting tourists and/or their family pets);

- death

(to assess, the same test as that which applies for 'inactivity', with the exception that more vigorous prodding/poking may be employed - please note: extreme caution is recommended as this indicator has yet to be field tested).

References

Australian Light Manufacturing Industry Training Advisory Board (2000) Textiles clothing and footwear training package: LMT00. Melbourne: Australian Training Products.

Australian National Training Authority (1998) Updated guidelines for training package developers: Australia's National Training Framework. Melbourne: Australian National Training Authority.

Australian National Training Authority (1999a) Policy for training packages: take a closer look. Melbourne: Australian National Training Authority.

Australian National Training Authority (1999b) Australian recognition framework arrangements. Melbourne: Australian National Training Authority.

Bartol K, Tein M and Matthews G (1997) Management: a pacific rim focus. Sydney: McGraw-Hill.

Bell D (1960) The end of ideology: on the exhaustion of political ideas in the fifties. New York: Free Press.

Community Services and Health Training Australia (1999a) Community services training package: CHC99. Melbourne: Australian Training Products.

Community Services and Health Training Australia (1999b) Community services training package (CHC99): children's services; national competency standards. Melbourne: Australian Training Products.

CREATE Australia (1999) Entertainment industry training package: CUE98. Melbourne: Australian Training Products.

National Mining Industry Training Advisory Body (1998) Extractive industries training package: MNQ98. Melbourne: Australian Training Products.

Smith A (1910) The wealth of nations. London: Dent.

Property Services Training Australia (1998a) Training package for asset maintenance in property services: PRM98. Melbourne: Australian Training Products.

Property Services Training Australia (1998b) Training package for asset security: PRS98. Melbourne: Australian Training Products.

Pugh D S, Hickson D J and Hinings C R (1983) Writers on organizations (third edition). Harmondsworth, Middlesex: Penguin.

Rural Training Council of Australia (1998) Training package in horticulture: RUH98. Melbourne: Australian Training Products.

Sayles L R and Strauss G (1981) Managing human resources (second edition). Englewood Cliffs, New Jersey: Prentice-Hall.

Seafood Training Australia (2000) Seafood industry training package: SFI 00. Melbourne: Australian Training Products.

Senate Employment, Workplace Relations, Small Business and Education References Committee (2000) Aspiring to excellence. Report into the quality of vocational education and training in Australia: overview and recommendations. Canberra: Commonwealth of Australia.

Spriegel W R and Myers C E (1953) The writings of the Gilbreths. Homewood, Illinois: R D Irwin.

Transport and Distribution Training Australia (1997) Transport and distribution training package: TDT97. Melbourne: Australian Training Products.

Contact details

John Hunter
Email: johnh@adel.tafe.sa.edu.au

The position of women in production in the process manufacturing industry in South Australia: implications for VET

Meredith Isbell

Manufacturing Learning SA (South Australia)

As part of a wider industry study undertaken by the process manufacturing ITAB, the position of women in production was surveyed. The findings indicate a discriminatory pattern of employment for women, who comprise approximately a quarter of the workforce. Women are more likely than men to be employed in part-time and casual positions and their access to traineeships is limited.

Women tend to be clustered in low-skilled production jobs and their representation in supervisory positions is limited. The reasons for women's exclusion from high skilled production jobs and the implications for their access to VET are considered. The problem is not just one of equity, but whether industry is fully utilising the skills of the workforce.

Background: changing employment patterns in Australia

Prior to the 1980s, Australian industry operated in a highly insulated, regulated economy and the manufacturing sector was protected by high tariffs. The deregulation of the economy and the sweeping tariff reforms associated with it exposed Australian industry to the global economy. The need to become internationally competitive forced Australian industry to adopt world best practices in terms of productivity and performance in order to survive (Winley 1994, p 11).

Significant labour market changes were associated with the reforms of the 1980s. In order to improve productivity and performance, a more flexible workforce was required. The decline of secure, full-time jobs and a rise in part-time and casual employment and an increase in the participation of women in the workforce were the main features of the labour market changes (ACIRRT 1999; Lansbury 1998). Between 1966 and 1994, part-time employment grew by 5.5% per annum; more than 3.5 times the growth in full-time employment of 1.5% per annum (ACIRRT 1999, p 136). By 1995, more than a quarter of the workforce was employed part-time, with women comprising 74% of all part-time workers (Lansbury 1998, p 140). About a quarter of the workforce were casuals. Between 1984 and 1997, the proportion of male casuals increased from under 10% to nearly 21%. The proportion of female casuals increased from 26% to 32% (ACIRRT 1999, p 140).

> The reforms have also led to a growing divide in the earnings distribution. Industry restructuring and downsizing has resulted in the decline of middle income jobs and their replacement by low wage jobs. Between 1976 and 1990, employment growth became concentrated at the top and bottom ends of the earnings distribution. (Lansbury 1998, p 142)

In the workforce in general, technological innovation is creating major changes in work practices. New technology is likely to eliminate some existing jobs and increase the skills required for remaining jobs. There will be proportionately fewer jobs for unskilled workers and the remaining jobs are likely to be more complex and require higher skill levels (Lansbury 1998, p 137; MacIntosh and Isbell 2000, p 6).

The manufacturing industry in Australia

Manufacturing can be defined as

> the physical or chemical transformation of materials or components into new products, whether the work is performed by power driven machines or by hand ... (Australian Bureau of Statistics 1993, p 47)

The Australian manufacturing industry produces thousands of different products requiring different degrees of transformation. The industry manufactures products ranging from those requiring simple transformations such as flour and cheese, to elaborately transformed products such as wire products, glassware, ceramic products, paints and medicines (Australian Bureau of Statistics 1999, p 6).

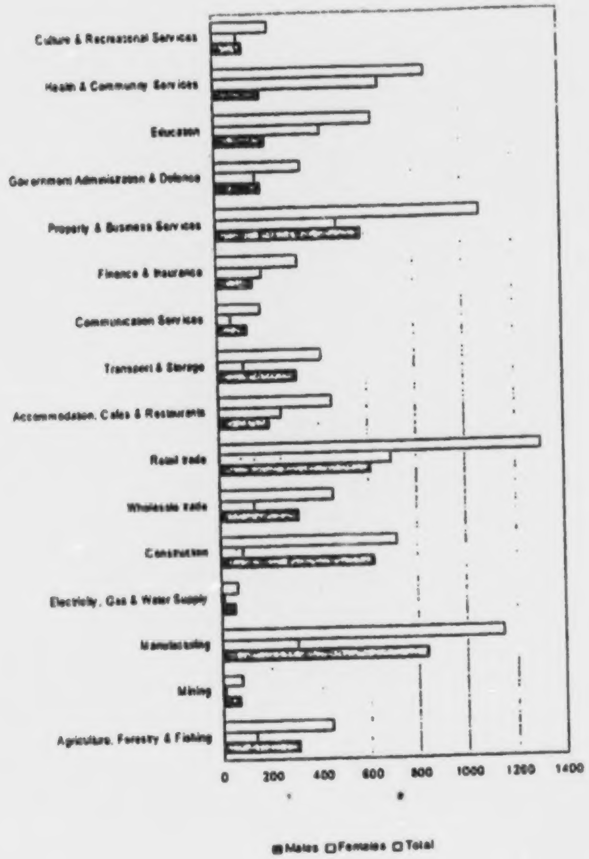
Manufacturing is a capital-intensive industry, using mechanised production methods which range from highly mechanised production lines using robotics to less complex activities such as concrete mixing (Australian Bureau of Statistics 1999, p 6).

Throughout its history, the industry has made a significant contribution to the Australian economy. It is the largest industry in terms of production volumes, but is one of the slowest growing. Over the 20 years to 1998-1999, it ranked sixteenth of 17 industries with an average annual growth of 1.8% (Australian Bureau of Statistics 1999, p 12). In terms of value, manufacturing production increased by 17% in the seven years to 1998-1999 (Australian Bureau of Statistics 1999, p 13).

The industry is dominated by a small number of large establishments. Though few in number, these establishments employ 47.1% of the manufacturing workforce and generate 57.3% of industry value added. Medium-sized establishments (those employing 20-99 people) account for 27.3% of the workforce and 24.2% of industry value added. There are a large number of small firms, which account for 25.6% of the workforce and 18.5% of the industry value added. The value added per person employed is greater in large establishments than in small ones (Australian Bureau of Statistics 1999, p 17).

The manufacturing industry is a significant employer as it accounts for 13.1% of all jobs in Australia. Manufacturing is the second largest employing industry in Australia. It is a male-dominated industry, with males outnumbering females by a ratio of about 3:1 (73% males and 27% female) (Australian Bureau of Statistics 2000). The total number of jobs in manufacturing is falling. In the 10 years to 1998, jobs declined by about 3% (National Centre for Vocational Education Research 1998, p 47). Figure 1 gives a graphical representation of employment in manufacturing compared with other industries.

Figure 1: Employed persons by industry



Source: Australian Bureau of Statistics 6203.0 Labour Force (August 2000, Table 46).

BEST COPY AVAILABLE

The process manufacturing industry sector

The process manufacturing industry sector comprises approximately 20% of total manufacturing. It includes a diverse range of products that contribute to final products in other sectors (Gilling 1998, p 95). The following four groupings make up the process manufacturing sector:

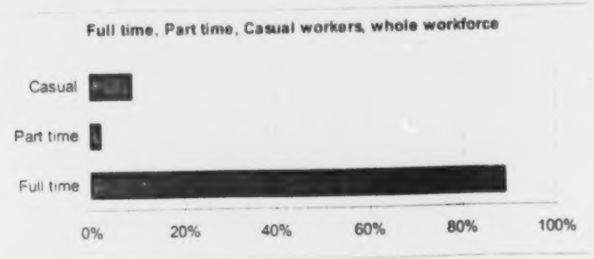
- Chemical, hydrocarbons and oil refining;
- Plastics, rubber and cablemaking;
- Non-metallic mineral products (which includes the building products of cement, concrete, glass and ceramics);
- Iron and steel

Employment profile of the process manufacturing sector in South Australia

The information presented here was collected as part of a wider survey of the process manufacturing industry sector in SA and its skill needs. This study was undertaken in 1999 and 2000 by Manufacturing Learning SA, the ITAB representing the process manufacturing industry sector in SA. The purpose of the study was to develop a profile of the sector and its skill needs in order to provide a guide to the implementation of vocational education in the sector. A survey, designed to provide basic data about the sector and its training activities and priorities, was mailed out to the 393 companies in the Manufacturing Learning SA's database. Of these, 136 valid responses were received, representing a response rate of 35.8% (MacIntosh and Isbell 2000, p 15). The data on employment patterns was collected as part of that survey.

The 136 companies surveyed in the process manufacturing sector employed almost 8,000 people in South Australia. Of these, 26.1% were women (MacIntosh and Isbell 2000, p 27). Figure 2 illustrates the employment profile in the process manufacturing sector. In common with the manufacturing industry in general, most of the workforce in process manufacturing (88.5%) is employed full time. Part-time employment is 1.9% and casual employment 8.3% of the workforce. Although full-time employment predominates, workforce flexibility is leading to an increasing trend towards casual employment (MacIntosh and Isbell 2000, p 26).

Figure 2: Employment profile of the process manufacturing sector



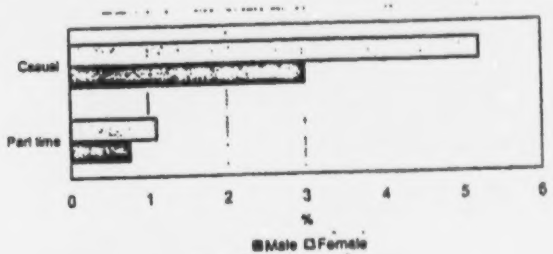
BEST COPY AVAILABLE

Source: MacIntosh and Isbell (2000, p 26).

In the manufacturing industry, the majority of males in the workforce were employed full time (95%) and 73% females were employed full time. Part-time employment is low, but females (6.8%) are more likely than males (3.6%) to be employed part time (Australian Bureau of Statistics 2000, Table 41, p 42).

A similar pattern of part-time and casual employment occurs in process manufacturing. Again, women are more likely than men to be employed in this manner. Of the 1.9 % of part-time employees, women comprise 1.1%. Of 8.3% of casual workers, women comprise 5.2%. This is illustrated in Figure 3.

Figure 3: Males and females in part-time and casual employment as a percentage of the whole workforce: process manufacturing sector (SA)



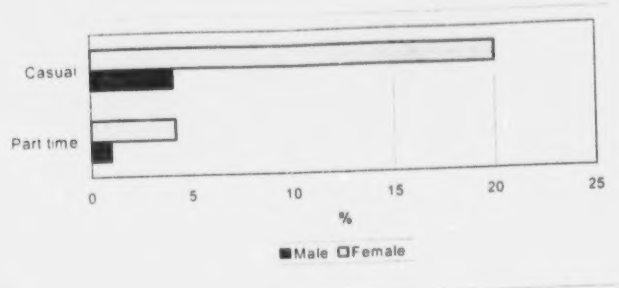
Source: MacIntosh and Isbell (2000, p 29).

The discriminatory pattern of employment in the manufacturing industry, where women are more likely than men to be employed in part-time positions, is further demonstrated by an examination of the percentages of women and men in part-time and full-time positions as a proportion of all women and men in the workforce.

Although Australian Bureau of Statistics data were not available for casual employees, an ACIRRT analysis suggests that the casual employment in the manufacturing industry is about 12% (ACIRRT 1999, p 139). Casual employment in the survey of the process manufacturing industry in South Australia (8.3%) is less than that for the broader manufacturing industry (MacIntosh and Isbell 2000, p 25).

Taking casual employment in the process manufacturing sector into account, the relative disadvantage that women encounter can be seen by an examination of the position of men and women in part-time and casual employment relative to the totals of men and women employees respectively. This is shown in Figure 4.

Figure 4: Men and women in part-time and casual employment relative to the totals of men and women employees: process manufacturing sector (SA)

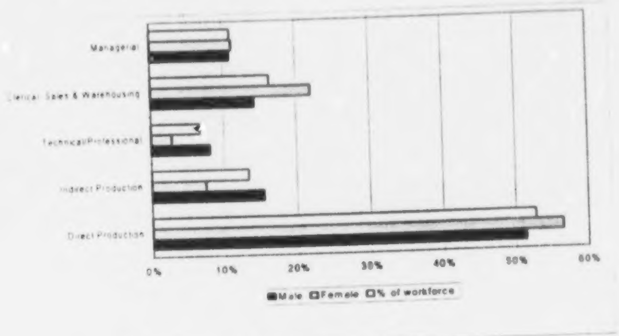


Source: MacIntosh and Isbell (2000, p 30).

Considering that women comprise just over a quarter of the workforce, they have a higher representation in these categories. Of all women, 32% are in casual jobs compared with 4.1% of men. For part-time work, 4.2% of all women are employed in this way, compared with only 1.0% of men (MacIntosh and Isbell 2000, p 30).

The disadvantage of women is further demonstrated by an examination of the occupations where they predominate. Figure 5 illustrates this. Women are concentrated in direct production (56.4%) and in clerical, sales and warehousing (22.0%). Only 7.4% are in indirect production and only 2.9% are employed in technical or professional occupations (MacIntosh and Isbell 2000, p 29).

Figure 5: Workforce employment profile by occupational group: process manufacturing sector (SA)



Source: MacIntosh and Isbell (2000, p 29).

Figure 5 indicates a low level of support for women in promotional positions in production (indirect employees) and in the technical and professional categories. While men (769) outnumber women (205) numerically in managerial positions, as a percentage of the proportion of men and women respectively, there appears to be

BEST COPY AVAILABLE

little difference between the representation of each gender. However, this result needs to be treated with some caution, as the Managerial category is at the highest level of ASCO aggregation. This level represents all administrative, supervisory and managerial positions for non-production staff from the highest to the lowest level. As such, the apparent gender equality in this category should be regarded with scepticism. Given the gendered nature of the sector, it seems unlikely that women are represented equally at senior management levels. Future research will need to disaggregate this category in order to give a more accurate picture.

The pressures of globalisation leading to technological innovation have led to a decline in employment opportunities in the manufacturing industry. In the future, the industry is expected to make a significant contribution to Australia's wealth, but it is not expected to lead to an increase in employment (Gollan et al 1996, p 15). Similarly, employment in the process manufacturing sector in SA is expected to remain static overall (MacIntosh and Isbell 2000, p 32).

Impact on women

Selection processes

The pattern of women's employment in manufacturing may begin at job selection. Recruiters may select on the basis of stereotypes they hold about the job, the person and the interaction between the person and the job. Gender stereotypes may be perpetuated where jobs are seen as having masculine and feminine characteristics. Women may be systematically discriminated against in jobs that are seen to have masculine characteristics, such as physical strength (Heneman et al 1996, p 79). Gender-based roles tend to be carried over into work, particularly where one sex is in the majority in relation to the other. 'Sex-role spillover' results in women being considered as sex objects and harassed. Women in the minority role tend to be less frequently selected and, when selected, placed in traditionally female occupations (Heneman et al 1996, p 88).

> A European study of process manufacturing reported a division of labour based on gender, with labour intensive, low paid jobs undertaken by women, and more complex and better paid jobs undertaken with men. These divisions were attributed to the segregation by gender within the formal vocational education and training system prior to the time of job selection and entry. (Flecker et al 1998, p 28)

Types of jobs

> The study into the process manufacturing industry sector in South Australia indicated discriminatory patterns of employment for women. Not only were they more likely than men to be employed in part-time and casual positions, but they were also clustered in low paid, low skilled jobs (MacIntosh and Isbell 2000). This observation was also made in a study of manufacturing sites in New South Wales, where women were located in low skilled clerical jobs and "in the most routine of processing tasks" (Willett 1995, p 2). Similarly, a study of the plastics and chemicals sub-sectors reported that women were … mainly employed in traditionally women's work like assembling, packing or sometimes machine operation. (Hooper and Hillier 1996, p 56)

There are numerous examples in the literature of the different patterns of employment between men and women; gender differences in the recognition of skills and the wages inequality are associated with this (Cockburn 1985; Jenson 1989; Wajcman 1991). Women tend to be clustered into a narrow band of industries and occupations and their wages tend to be lower than industries and occupations in which men predominate (Gardner 1994, p 2). In Australia, women predominate in two occupational categories: clerks and salespersons (30.6%), and personal service workers (Hampson et al 1994, p 247). The concentration of women in low paid, low skilled jobs is evidence that women's work and skills are undervalued relative to men's work and skills (Gardner 1994, p 2).

A study of wage patterns between 1986 and 1996 indicates that low skilled workers in manufacturing are disadvantaged. Male tradespeople earn more than male labourers and both earn significantly more than female labourers. Movements in pay have been uneven. The divide between the higher paid and lower paid workers, who do essentially the same work, is increasing. Female labourers are the lowest paid group in manufacturing (Buchanan and Watson 1997, pp 11-14). The many government policy initiatives directed at encouraging women into non-traditional occupations fail to address the position of the women who remain in low-paid, low-skilled jobs (Burgmann 1994, p 21).

In their efforts to move into high skilled, high paid jobs, women encounter structural impediments, such as 'the gender bias of the existing training infrastructure, unequal access to training and the devaluation of work traditionally undertaken by women' (Hampson et al 1994, p 247). The discriminatory pattern of women's employment in the manufacturing industry was institutionalised in the sexism of the apprenticeship system, which was defined by the exclusion of women. Efforts to overcome the masculine bias in the vocational education and training system dating from the 1970s have only been partially successful (Ewer 2000, p 39). When making vocational choices, women, aware of the gendering of occupations, avoid the male-dominated ones (Flecker et al 1998, p 32).

Job security

The last 25 years have seen a strong growth in the Australian workforce, the entry of women into paid employment and an increase in part-time and casual employment. These changes are predicted to continue into the future (Gollan et al 1996, p 12).

Much of the growth of part-time and casual employment has been in the service sectors, such as retailing and hospitality. The re-entry of women into the workforce, some of whom prefer not to work full time, partly accounts for the growth in this type of employment. Employers' demands for more flexible working arrangements has also made a significant contribution. The proportion of part-time workers who want to work more hours increased from 17% to 26% between 1986 and 1996. The shift towards part-time and casual employment and decline of full-time employment, therefore, represents a form of underemployment (ACIRRT 1999, p 136).

Of the reasons why people choose to work part-time, most women choose to do so for family reasons (18%) and most men for study reasons (22%). The remainder have no choice because

> ... overwhelmingly, for both men and women, the reason most people work part-time is because of work-related reasons, either because there is not enough work available or the job is only offered as a part-time job. (ACIRRT 1999, p 137)

The relationship between continuity of employment and skill development is important. Part-time jobs tend to be associated with the lower levels of the enterprise, involving only basic and non-transferable skills. Skill development and training are frequently not available to these employees (Knox and Pickersgill 1993, p 35). In terms of access to training, casual employees are disadvantaged, as employers are reluctant to invest in their training (MacIntosh and Isbell 2000, p 26). Casual employees are 11% less likely than non-casuals to receive job-related training. (ACIRRT 1999, p 141).

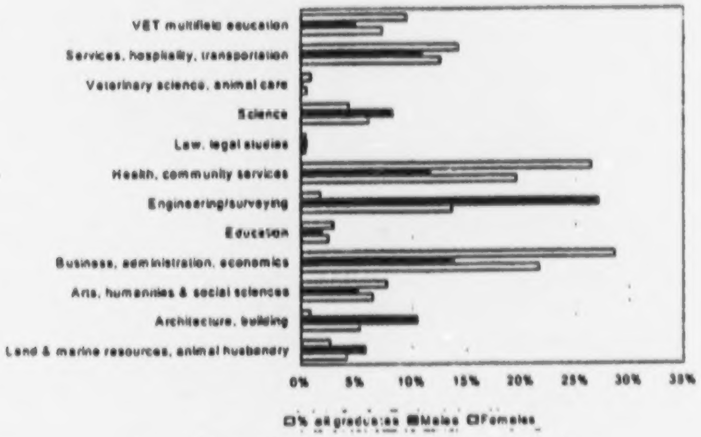
> While the prevalence of part-time and casual work in the process manufacturing sector is not as high as in the labour market in general, the South Australian survey found evidence of an increasing trend towards casualisation in the sector because of the flexibility it gives. (MacIntosh and Isbell 2000, p 29)
>
> The disproportionate representation of women in casual and part-time employment in manufacturing generally and in the process manufacturing sector limits their access to training and disadvantages them as far as skill development is concerned. (MacIntosh and Isbell 2000, p 30)

Access to apprenticeships and traineeships

Women have a long history of employment in manufacturing industries. During World War II, women worked as welders, assemblers and machine operators. Despite this and recent government policy initiatives to encourage women into non-traditional occupations, only a small percentage of women enter apprenticeships and traineeships in non-traditional areas (Stone 1998, p 192). Women make up only 12% of all apprentices (Australian National Training Authority 1997, p 17), and 5% of these apprenticeships are in hairdressing (Ewer 2000, p 39). The 7% of women in apprenticeships does represent a small increase of 4% since 1988, when only 3% of women were in apprenticeships other than hairdressing (Pocock 1988, p 81). This suggests that women's access to apprenticeships is improving overall. However, it is unlikely that this overall improvement is reflected in the manufacturing industry. An analysis of the NCVER's latest Student Outcomes Survey suggests that the participation of women in the category Engineering/Surveying is well below their participation in non-traditional areas overall. In manufacturing, many technical, trades and process operator qualifications would be included in Engineering/Surveying. However, females comprise only 1.7% of TAFE graduates from this category (NCVER 2000, Table 15, p 35). Figure 6 graphically illustrates the low participation of women in this category.

The gender segmentation of the workforce in manufacturing and in the process manufacturing sector is reflected in the low number of women in traineeships. The process manufacturing sector in SA is characterised by a very low number of trainees and apprentices. The Plastics and Rubber Products sub-sector had the highest number of trainees and, according to the survey results, is the only sector with female trainees. Figure 7 illustrates the proportion of males and female trainees.

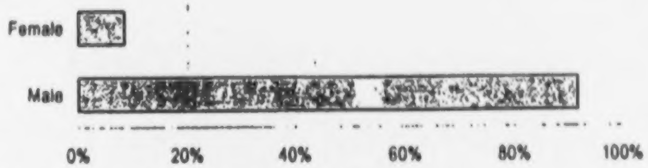
Figure 6: Males and females as a percentage of TAFE graduates by field of study



Source: NCVER Student Outcomes Survey 2000 National Report. Table 15: Percent of graduates by field of study.

An explanation for the low take-up of traineeships in the process manufacturing sub-sector may be the fact that, until recently, there was no formal qualification structure for the sector. The recently released National Training Packages for the sector is expected to lead to the uptake of training more widely and the further uptake of traineeships in the sector (MacIntosh and Isbell 2000, p 26). However, for women, research evidence suggests that little progress will be made unless an environment more conducive to women's participation is established.

Figure 7: Percentage of male and female trainees: process manufacturing sector (SA)



Source: MacIntosh and Isbell (2000, p 26).

BEST COPY AVAILABLE

Possible explanations for the low take-up of apprenticeships and traineeships by women is because they often face a hostile environment and a lack of support (Stone 1998, p 192).

In her work, Pocock found that female apprentices working in non-traditional areas often found the experience daunting. Young female apprentices did not want special treatment, but they felt isolated in the TAFE environment. The masculine nature of TAFE and the attitude of some teachers was a barrier. Some teachers held strong sex stereotypes and, in some instances, expressed opposition to women's entry into some trades (Pocock 1988, p 82).

These barriers still seem to persist. In a recent study, Helen Connole reported that, in addition to the curriculum, women in non-traditional areas had to manage gender-related experiences with the training provider and employer staff. These women required high level interpersonal skills, determination and assertiveness during the course (Connole 2000, p 27). Connole also found instances of differential treatment between male and female students in trades courses (Connole 2000, p 41).

Pocock found that some employers preferred men in some occupations. In fact, some employers

> … consistently refused to accept graduates or allow work experience opportunities for females in trades. (Pocock 1988, p 85)

The hostile work environment that Pocock found women often encountered seems to have changed little in the intervening years. Connole also observed that

> … women in non-traditional trade training were attracted to the work itself but anticipated difficulty in continuing to work in their industries due to the hostile climate they encountered. (Connole 2000, p 14)

The masculine culture is a characteristic of manufacturing. A study of training needs in the manufacturing industry in New South Wales observed that several sites 'were hard core male domains riveted with entrenched attitudes, cultures and structures' (Willett 1995, p 1).

The masculine culture of the industry seems to present a significant barrier for the career progression of women. There seems to be a belief in the industry that career paths are the domain of the male breadwinner and many women in the industry do not see their jobs as careers. A possible cause is the incompatibility with women's lives and the way work is organised. Managers' unfamiliarity with training methods that assist individuals in career choices and their preference for directive forms of training where people 'are given information or told what to do' appears to be another contributing factor (Hooper and Hillier 1996, p 58). However, there is evidence that some women would prefer a career, not just a job (Hooper and Hillier 1996, p 59).

The impact of technology

Work organisation is being driven by the need to compete. The competition is principally from newly industrialised, low wage countries or from high technology western economies. Manufacturing establishments operating on a low wage basis have largely gone offshore. Those operating in high technology markets have been required to increase the productivity and skills of the workforce (Gollan et al 1996, p 11).

Technological innovation is a significant factor in maintaining competitiveness and new technology is a significant factor in the demand for higher skill levels. The trend towards increasing skill levels driven by the use of more sophisticated computer-controlled production systems was a significant finding of the study of the process manufacturing industry in SA (MacIntosh and Isbell 2000, p 5).

Technological changes will continue to lead to increasing task specialisation in professional jobs, such as engineering. Multiskilling of shopfloor employees will be essential due to the increasing sophistication of production processes and also due to the increasing need for communication skills for workers at all skill levels (Gollan et al 1996, p 26). It is predicted that there will be some devolution of operational decision making to the shopfloor (Gollan et al 1996, p 25).

Technology at the very least puts downward pressure on the wages of unskilled workers and, in many instances, replaces unskilled labour. This leads to further cleavages in the income distribution between high and low skilled workers (Gollan et al 1996, p 13).

Another effect of technology is that workplace restructuring, where manual tasks are replaced, is often a consequence of the introduction of more sophisticated, high performance machinery. The consequence is workforce reduction and this affects marginalised workers, such as women, who are often the first to go. Women are forced to choose between family responsibilities and paid employment where high volume production is introduced with three-shift, seven-day work schedules (Flecker, et al 1998, p 32).

Technological change, especially in conjunction with new production methods, will require a smaller, but highly skilled and flexible workforce that is prepared to undertake ongoing training to facilitate the adaptation of skills to new technology (Wajcman 1991, p 28). In response to technological change in which knowledge of the machinery is required, new work practices emphasise small groups that work together, job rotation and workers' participation in regulating production (Jenson 1989, p 153).

The process involved is the constitution of work groups which can respond in a flexible way to the new automated work by adjusting quickly to changing needs of production, deploying effort where attention is needed at any moment and thus increasing both productivity and the intensity of labour. However, these new methods involve gender bias in their application. Whether such groups will include workers who are different is problematic. By their very form, work groups foster 'we/they' feelings and relationships. Differences tend to be excluded (Jenson 1989, p 154).

The importance of work groups, as well as the entrenched idea that womens' relationship to machinery differs from that of men, is significant when evaluating the differential gender effects of the new production methods. Workplace relations contribute to identities of gender, and work groups are a major place where that occurs. Work teams are likely to be single-sex groups, for which gender difference becomes a boundary (Jenson 1989, p 153).

All this suggests that, without intervention, the future employment position of women in the manufacturing industry is likely to be further marginalised.

Diversity management

One intervention strategy, for which there is a sound business case, is based on the notion of utilising the skills of the whole workforce, and some enterprises are doing this to achieve sustained competitive advantage (Kossek and Lobel 1996).

The resources available to an enterprise, and its deployment of them, affect their performance in the market place. Companies that can lower their costs and enhance their differentiation will achieve competitive advantage. Differentiation based on product improvements or innovation requires an effective human resource capability (Wright et al 1995, p 272). The resources that people bring to an enterprise are their skills, knowledge, reasoning and decision-making abilities (Grant 1993, p 162). Enterprises that value and support their people because they are different can gain a competitive advantage (Wright et al 1995, p 272). Those that choose difference as a resource do so for economic reasons. They draw on the broader competence and experience that differentiates among workers. In such companies, diversity is a strategy for achieving a high-quality profile, giving better service to the customer and achieving higher profit levels (de las Reyes 2000, p 264).

In order to utilise the skills of all people, organisations undertake a strategic management process to manage diversity in the workforce. Emphasis is placed on developing the skills and creating policies and practices that get the best from each worker. Diversity management, then, is a

> … process of creating and maintaining an environment that naturally allows all individuals to reach their full potential in pursuit of organisational objectives. (Dagher and D'Netto 1997, p 2)

Diversity management is based on the premise that white male culture gives way to one that respects individuality and difference (Thomas 1990, p 113). This is of interest where women are increasingly long-term participants in the workforce (Stone 1998, p 722).

The benefits that can be attributed to managing diversity include

- increased organisational effectiveness
- enhanced productivity
- improved morale (Thomas and Ely 1996, p 79)
- superior job performance
- reduced absenteeism
- reduced labour turnover (Wright et al 1995, p 272).

The retention of skilled workers can save businesses the cost of recruiting and training new staff, which is estimated to be between 20 and 150% of the annual salary of an employee in some cases (Holmes 1994, p 17). Employee replacement costs include:

- the recruitment process (advertising and training new recruits)
- the diminished return on investment in training
- the cost of lost experience
- the extra cost of providing temporary staff to absorb the workload between departure and replacement (EOWA 2000, p 4).

Companies where diversity in the workforce is used for competitive advantage, and who manage it effectively, can be more profitable. A comparison, undertaken in the United States in 1993, of Standard and Poor's 500 firms, demonstrated that those recruiting and advancing women and minorities outperformed those that did not. The 100 firms with the best diversity management histories had average returns of 18.3% per annum over a five-year period, while the 100 firms with the worst histories had returns of only 7.9% per annum over the same period (Dass and Parker 1996, p 366).

Where productivity and profits depend on the full utilisation of the workforce, training is seen as a key method for eliminating artificial barriers to employee development and capability. Where the workforce is properly trained, diversity becomes an asset (Ford and Fisher 1996, p 165).

The work practices associated with technological innovation require a high degree of cooperation between team members. Diverse work groups have a broader range of knowledge, skills, abilities and experiences that can enhance the group's ability to analyse and solve problems. Such groups may produce a greater range of alternative solutions and make higher quality decisions. There is also some evidence that mixed-sex teams can outperform same-sex teams (Thompson and Gooler 1996, p 398).

Enterprises that have recognised that competitiveness can be achieved by utilising the skills of all employees include major United States companies such as Proctor and Gamble and Corning. Proctor and Gamble made a concerted effort to locate and recruit talented women and minorities. It recognised that to succeed as a company it needed 'an environment that makes it easy for all of us, not just some of us, to work to our potential'. By doing this, it was predicted that the company would be better and more competitive (Thomas 1990, p 113). Corning had higher attrition rates for women and minorities than it did for white males. This meant that investments in training and development were being wasted. It was found that the culture and values of the company worked against women. It established a diversity management program and career planning systems. These measures were taken to improve efficiency and competitiveness (Thomas 1990, p 110). An Australian example is Melbourne manufacturer Don Smallgoods. In order to fulfil its objective of using all of the available talent within the company, it has introduced a comprehensive training program to make it more inclusive of women and to raise the skill levels of the workforce (OTFE 1998, p 13).

Conclusion

Progress on women's representation in non-traditional areas has been slow. The evidence suggests that the masculine environment that women encounter both in the training and work environment is a barrier.

Women who are employed in manufacturing are more likely than men to be in part-time and casual jobs and have very limited career paths. It would be easy to dismiss this industry as too hard and direct access and equity efforts to new and emerging industries, where women do not face the strong tradition of male exclusivity and female exclusion from career paths that they do in manufacturing. However, manufacturing is the second largest employer in Australia. To dismiss it as an employment opportunity and career option for women would be to deny them access to a significant employer. This, in itself, would be a discriminatory recommendation. Therefore, the work of access and equity for women employed in manufacturing should continue.

Real career paths for women, covering the range of occupations in the industry, need to be encouraged. There is evidence to suggest that there are efficiency gains to be made by firms that utilise all the skills of their workers. The management of diversity can lead to competitive advantage and increased profitability. Diversity in the workplace becomes a valuable asset and training is a key lever in both the implementation of diversity management and in ongoing employee development.

A way to advance access and equity for women in the manufacturing workforce seems to be by working with firms in the industry to promote and educate them in the benefits to be gained by drawing on the diverse range of skills and knowledge in the people they employ. Where firms use diversity as an asset, training is a key requirement in the implementation and maintenance of diversity programs.

Firms that adopt policies of utilising and developing the skills of women in the workforce may lead to more women from the present workforce taking up apprenticeships and traineeships in non-traditional areas.

Further research will investigate the benefits to firms of fully utilising the skills of the workforce and develop strategies for promoting and implementing diversity management in industry. It will consider whether more women from within the current manufacturing workforce can be encouraged to take up apprenticeships and traineeships - and whether this provides access to a more diverse range of career paths for women in manufacturing.

References

Australian Bureau of Statistics (1993) Australian and New Zealand standard industrial classification. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (1999) Manufacturing, Australia. Canberra: Australian Bureau of Statistics. ABS 8225.0.

ACIRRT (1999) Australia at work. Sydney: Prentice-Hall.

Australian National Training Authority (1997) Stocktake of equity reports and literature in vocational education and training. Brisbane: Australian National Training Authority.

Buchanan J and Watson I (1997) A profile of low wage employees. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper 47.

Burgmann M (1994) Women and enterprise bargaining in Australia. In S Hammond (ed) Equity under enterprise bargaining. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper 33.

Cockburn C (1985) Machinery of dominance: women, men and technical know-how. London: Pluto Press.

Connole H (2000) Making training work for women. Leabrook, Adelaide: National Centre for Vocational Education Research.

Dagher J and B D'Netto (1997) Managing workforce diversity in Australia. Caufield East: Monash University. Department of Management. Working Paper 05/97.

Dass P and B Parket (1996) Diversity: a strategic issue. In E E Kossek and S A Lobel (eds) Managing diversity: human resource strategies for transforming the workplace. Oxford: Blackwell.

de las Reyes P (2000) Diversity at work: paradoxes, possibilities and problems in the Swedish discourse on diversity. Economic and Industrial Democracy, vol 21, pp 253-66.

EOWA (2000) Equal opportunity is good for business. Equal Opportunity for Women in the Workplace Agency. http://www.eeo.gov.au/good_for/index.html.

Ewer P (2000) Trade unions and vocational education and training: questions of strategy and identity. Labour and Industry, vol 10, no 3 (April) pp 37-56.

Flecker J, Meil P and Pollert A (1998) The sexual division of labour in process manufacturing: economic restructuring, training and 'women's work'. European Journal of Industrial Relations, vol 4, no 1, pp 7-34.

Ford J K and S Fisher (1996) The role of training in a changing workplace and workforce: new perspectives and approaches. In E E Kossek and S A Lobel (eds) Managing diversity: human resource strategies for transforming the workplace. Oxford: Blackwell.

Gardner M (1994) Why equity is good policy or making sure rewards are just. In S Hammond (ed) Equity under enterprise bargaining. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper 33.

Gilling J (1998) Process manufacturing industries today. In P Curtin (ed) Future training issues in Australia's industries. Leabrook, Adelaide: National Centre for Vocational Education Research.

Gollan P, Pickersgill R and Sullivan, G (1996) Future of work: likely long term developments in the restructuring of Australian industrial relations. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper 43.

Grant R M (1993) Analysing resources and capabilities. In G Lewis, A Morkel and G Hubbard (eds) Australian strategic management: concepts, context and cases. Sydney: Prentice-Hall.

Hampson I, Ewer P and Smith M (1994) Post-Fordism and workplace change: towards a critical research agenda. Journal of Industrial Relations, vol 36, no 2, pp 231-257.

Heneman R L, Waldeck N E and Cushnie M (1996) Diversity considerations in staffing decision-making. In E E Kossek and Lobel SA (eds) Managing diversity: human resource strategies for transforming the workplace. Oxford: Blackwell.

Holmes A (1994) Why equity is good policy. In S Hammond (ed) Equity under enterprise bargaining. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper 33.

Hooper A and Hillier E (1996) Training for workforce complexity in the polymer industry. Australian National Training Authority.

Jenson J (1989) The talents of women, the skills of men: flexible specialization and women. In S Wood (ed) The transformation of work? Skill, flexibility and the labour process. London: Unwin Hyman.

Knox M and Pickersgill R (1993) Women and training: education in the workforce: literature review. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper 29.

Kossek E E and Lobel S A (eds) Managing diversity: human resource strategies for transforming the workplace. Oxford: Blackwell.

Lansbury R D (1998) Rethinking work: employment and incomes policies. In B Cass and R Couch (eds) Divided work, divided society. Sydney: University of Sydney, Research Institute for Humanities and Social Sciences.

MacIntosh M and Isbell M (2000) Manufacturing skills: final report of the industry survey and skills audit for the process manufacturing industry in South Australia. Adelaide: Manufacturing Learning SA.

National Centre for Vocational Education Research (1998) The outlook for training in Australia's industries. Leabrook, Adelaide: National Centre for Vocational Education Research.

National Centre for Vocational Education Research (2000) Student outcomes survey 2000: National report. Leabrook, Adelaide: National Centre for Vocational Education Research.

OTFE (1998) Managing diversity: guide to implementation. Melbourne: Office of Training and Further Education.

Pocock B (1988) Demanding skill: women and technical education in Australia. Sydney: Allen and Unwin.

Stone R (1998) Human resource management (third edition). Brisbane: Wiley.

Thomas R R (1990) From affirmative action to affirming diversity. Harvard Business Review, March-April, pp 107-17.

Thomas D A and Ely R J (1996) Making differences matter: a new paradigm for managing diversity. Harvard Business Review, September-October, pp 79-90.

Thompson D E and Gooler L E (1996) Capitalizing on the benefits of diversity through workteams. In E E Kossek and S A Lobel (eds) Managing diversity: human resource strategies for transforming the workplace. Oxford: Blackwell.

Wajcman J (1991) Feminism confronts technology. North Sydney: Allen and Unwin.

Willett J (1995) Women in manufacturing - can it change? Paper presented at the fifth Women and Labour Conference, Sydney.

Winley V (1994) Why equity is good practice. In S Hammond (ed) Equity under enterprise bargaining. Sydney: Australian Centre for Industrial Relations Research and Training. ACIRRT Working Paper No 33.

Wright P, Ferris S P, Hiller J S and Kroll M (1995) Competitiveness through management of diversity: effects on stock price valuation. Academy of Management Journal, vol 38, no 1, pp 272-87.

Contact details

Meredith Isbell
Ph: 8383 9955
Mobile: 0414 311 522
Email: misbell@senet.com.au

Thinking outside the box: a remote VET in Schools program challenges traditional boundaries

Susan Johns, Sue Kilpatrick, Bill Mulford and Ian Falk

University of Tasmania

(Supported by the Rural Industries Research and Development Corporation - RIRDC)

What do a school and community do when mainstream education is failing its students and those students are not completing secondary schooling? In one remote[1] community, the solution was to form a partnership between the school, local community, and State and Commonwealth education authorities, and to plan and implement a VET in Schools program. This paper outlines reasons for the effectiveness of the program, including a leadership process which focuses on extensive consultation with stakeholders, and a willingness to take risks by pushing traditional boundaries of Government policy and practice.

This paper presents findings from one of five sites selected to participate in a national study into the contribution of rural schools to their communities, apart from their traditional role of educating youth. In this site the focus is on the process of developing and implementing a VET in Schools program, the program's outcomes, and the role of leadership as a key influencing factor. The study is timely as it overviews the multiple outcomes of VET in Schools programs from the perspective of school and community members, and it addresses the issue of leadership for effective school-community partnerships. Both are recommended areas for further VET research (Centre for Research and Learning in Regional Australia 2000; Dumbrell 2000).

Background to the study

Rural schools and social capital

Recent research highlights the role of rural schools in helping to build community capacity by developing community social capital (Lane and Dorfman 1997; Miller 1995). Social capital is defined as interactions between people which lead to the development of social networks 'that can improve the efficiency of society by facilitating coordinated actions' (Putnam 1993, p 167). Research indicates that the nature of the social capital is determined by the quantity and quality of these interactions; in particular by the degree of elements we call internality-externality, historicity, trust, and shared values and norms (Falk and Kilpatrick 2000). As school and community interact, relationships are forged which contribute to the community's stores of social capital, and to community sustainability (Falk and Mulford, in press; Lane and Dorfman 1997).

VET in Schools programs as facilitators of social capital

Recent studies identify a variety of outcomes of VET in Schools programs for individuals and communities. For example, student outcomes include improved self-esteem and self-confidence (Kane 1997, cited in Dumbrell 2000; Misko 1999); increased vocational, team working and communication skills; and greater chances of obtaining employment (Misko 1999). Kilpatrick et al's (2000) study of three Tasmanian rural schools identifies a number of initial outcomes of VET in Schools programs for schools and communities, including increased school retention rates, more positive attitudes towards education and learning within the community, and the provision of lifelong learning opportunities. In particular, evidence is emerging that as schools and their communities work together to develop VET in Schools programs, they are building new networks within the community (Figgis 1998; Kilpatrick et al 2000). These new networks are important in building community social capital (Falk and Kilpatrick 2000).

Leadership in schools and communities

Research identifies school and community leadership as a major factor influencing school contribution to rural communities (Johns et al 2000; Lane and Dorfman 1997). In particular, leadership has been found to influence the effectiveness of VET in Schools initiatives (Chiswell et al 2001; Frost 2000; Kilpatrick et al 2000).

In recent years there has been a shift in emphasis from hierarchical, leader-centred leadership to a new leadership paradigm, focusing on leadership as a process through which group goals are realised (Barker 1997; Leithwood and Duke 1999). This shift in leadership focus reflects a world of rapid change and increasing complexity in which a small number of designated leaders, it is argued, is no longer able to meet individual and group needs (Falk and Mulford, in press). Research indicates that the collective and facilitative practices associated with transformational leadership are most closely associated with effective school reform (see, for example, Mulford 1994; Silins and Murray-Harvey 1999). These practices include developing the vision and goals for the school, developing and maintaining a supportive school culture, and fostering capacity and commitment of staff (Duke and Leithwood 1994).

Recent research by Silins and Mulford (cited in Hallinger et al forthcoming) notes a positive relationship between the transformational leadership practices of school principals, the extent to which their school displayed organisational learning principles and positive student outcomes. Schools characterised as learning organisations displayed the following characteristics: a trusting and collaborative climate; a willingness to take initiatives and risks; a shared and monitored mission; and ongoing learning through professional development. By building trusting relationships and establishing inclusive structures for governance and processes for collaborative enquiry within their schools (Lambert 1998), transformational leaders encourage distribution of leadership responsibilities amongst teachers (Lambert 1998; Silins and Mulford cited in Hallinger et al forthcoming) and also amongst parents (Lambert 1998).

The community development literature also describes the emergence of a new leadership paradigm. The focus is on leadership as a social process made up of complex relationships, which allows for 'the development and definition of roles and role expectations where none may have existed, and they include ways that people have an effect upon each other apart from our usual ideas about relationships' (Barker 1997, p 9). In support of this view of leadership, Falk and Mulford (in press) argue that a new community leadership model, which includes and values a wider group of people than just the 'leader', is a key to creating sustainable communities. Drawing on the research of Peirce and Johnson (1997), Falk and Mulford (in press) describe this new model as enabling leadership, which facilitates others to come together to create visions and plan futures, inspires commitment and action by enabling people to solve problems, and builds broad-based leadership involvement (Falk and Mulford forthcoming). In particular, the focus of the proposed new enabling leadership model is on the facilitation of networks across community sectors - that is, on the development of social capital (Falk and Mulford forthcoming).

Methodology

This qualitative research uses a case study approach to investigate the way in which one rural school contributes to its community, and the complex role of leadership in the process. The study is centred on Cooktown in Far North Queensland, which was selected purposefully for several reasons: evidence of effective leadership in the development and maintenance of a VET in Schools program; the relative remoteness of the location; and its Indigenous population (approximately one third of the population of the Cook Shire is classified as Indigenous according to the Australian Bureau of Statistics 1998). Utilising a multi-method research design, data were collected using three techniques: semi-structured interviews; researcher observation; and reference to written documentation. Interviewees were selected using a purposive sampling strategy (Babbie 1998), to represent four target groups: (1) students, (2) school staff including the Principal, (3) parents and other community individuals, and (4) representatives of industry and community groups. With the aid of Non-numeric, Unstructured, Data Information Searching and Theorising (NUD*IST) computer software, interview data were analysed thematically with reference to the literature, and were validated through a process of triangulation involving researcher checks with selected interviewees, and cross reference to written documentation and researcher observation (Burns 1997).

The community and its school

With a population of 1411 people (Australian Bureau of Statistics 1998) and growing, Cooktown is a service centre for the surrounding pastoral properties, and for a number of smaller Indigenous and non-Indigenous communities. The region supports a number of industries, including rural industry, mining and tourism. The only secondary school in the region is Cooktown State School and Secondary Department, which caters for 420 students from pre-school to year 12. Approximately 25-30% of the total students are Indigenous, concentrated mainly in the Secondary Department.

In an effort to remedy low school retention rates, the school and community collaborated to develop a VET in Schools program, which was introduced in 1997. *Step ahead: a Cooktown community initiative* is for students designated 'at risk'. It is needs-driven and culturally inclusive, although of the 22 students enrolled in the program in 2000, the majority were Indigenous males. Work placements reflect the industry base of the region, and include rural skills, building and construction, engineering (pre-vocational), basic office skills and hospitality.

Findings

A community with a purpose

The initiative for a VET in Schools program came from two teachers at Cooktown State School concerned with the failure of the mainstream curriculum to cater for certain students. From the beginning, the school recognised the importance of developing the initiative as a partnership between school and community, if the problem was to be dealt with effectively.

A 'think tank' meeting was organised by the school to which prominent community members representing diverse industry and community groups in the region were invited. In a community used to helping itself, the level of community commitment and support for the program was high from the beginning:

> ... they jump on board and they feel well they have to because, you know, if they don't nobody else will. And they're very, the Cooktown people are extremely vigorous and passionate about their town, extremely so, and I've never seen anything like it.

To formalise the school-community partnership, a Management Committee was formed, comprising representatives of all stakeholder groups, including the school, local council, the construction, mining, pastoral and hospitality industries, Indigenous groups and parents. Committee members were described as 'a very very powerful group of quite energetic and creative people'. The formation of the Management Committee was significant because it facilitated 'on-going liaison between stakeholders and clients to obtain relevant feedback for guiding the development of the program' (*Step ahead: a Cooktown community initiative* booklet, p 12), and brought 'a sense of direction and a networking structure to the project' (*Step ahead: a Cooktown community initiative* booklet, p 10).

Committee members used their networks to canvas other employers within their respective industry groups to offer work placements to students. The care and time taken with the screening and selection of students and employers was described as a key feature contributing to the initial and ongoing commitment to the program. The Committee continues to provide ongoing links and regular communication between employers, the Indigenous and non-Indigenous community, and the school.

Funding and support from government agencies was also critical to the implementation of *Step ahead*, and school staff and Committee members used their networks to build and maintain close relationships with representatives of key external bodies.

Pushing the boundaries

Step ahead had a clear purpose - to increase the educational opportunities for their youth, many of whom had already left school by year 10. This meant building relationships with influential others who were prepared to 'think outside the box' to help Cooktown find the best way to meet its needs:

> So a lot of support was provided by [the funding body] ... they had people who could think outside the square and you know support us and allow us to take the risks and the risks paid off.

At the time, the existing policy of the major funding body precluded funding to year 9 and 10 VET in Schools programs. With the support of the community, the school challenged funding body policy:

> ... [because of] the recognition of the commitment of the people involved at Cooktown ... the lady [from the funding body] ... said well this doesn't really quite fit the guidelines precisely, but it's such a valuable initiative we need to keep it going.

The school also challenged traditional education boundaries such as the 9.00 am to 3.00 pm school day, and by appointing a local business person to the position of *Step ahead* coordinator, the Principal challenged traditional educational practices. Whilst not a trained educator, this person has been Chairperson of the *Step ahead* Management Committee since its inception, and also has close links with the Shire council. The *Step ahead* Coordinator uses her broad networks to facilitate communication between the school and community, and has done much to strengthen the relationship between the Indigenous and non-Indigenous communities within the region.

Outcomes

The school reports an increase in both attendance and retention rates as a result of the program. Students have gained a sense of identity of their place in and value to the community, and have become positive role models to other young people. In addition, some have gained employment, or pathways to employment through school-based apprenticeships.

The findings also indicate that community capacity has increased, as *Step ahead* brings school and community members together to bring about change in their community:

> ... [*Step ahead*] brought [together] ... a group of people with similar interests and ideas and ambitions, I suppose, and that gave that base then to look at those other (initiatives), say the local work force [partnership] was an off shoot from that and then I suppose just because the support and talk, actions came out of that because you get things ...

Positive local and statewide publicity generated by the success of *Step ahead* has increased the community's self-esteem, sense of identity and pride. In addition, *Step ahead* has helped to bring about a greater community awareness of the need for ongoing education and training, and has been the catalyst for other community initiatives, including a planned community-run skills centre. Those involved in planning the skills centre include the *Step ahead* coordinator and several *Step ahead* Management Committee members.

Discussion

By working closely with its community through the *Step ahead* program, Cooktown State School has contributed to the sustainability of the region in terms of addressing youth issues such as low school retention rates and low self-esteem. These outcomes of VET in Schools programs are consistent with those reported by Misko (1999), Kilpatrick et al (2000), and Kane (1997, cited in Dumbrell 2000). By providing a mechanism for community-wide interaction and stimulating the formation of new networks within and external to the community, the school also has helped to foster community social capital (Falk and Kilpatrick 2000).

Underpinning these contributions is a school leadership process which facilitates inclusivity, developing the capacity of school and community members, relationship building, and risk-taking. These are all elements of effective leadership associated with school reform (Mulford 1994; Silins and Murray-Harvey 1999) and community sustainability (Falk and Mulford forthcoming).

The decision of the school to involve all stakeholder groups in the planning and development of *Step ahead* demonstrates the importance placed on broad-based involvement in leadership. The Management Committee illustrates how school and community leaders from all sectors have worked together to develop a shared vision and to work collaboratively for the benefit of the community. By distributing leadership, all stakeholders have been given a voice in the planning, development and maintenance of *Step ahead*. This distribution of leadership responsibilities is indicative of the transformational leadership practices within the school (Lambert 1998; Silins and Mulford, cited in Hallinger et al forthcoming). In addition, Committee members utilised their extensive internal and external networks in order to recruit employers to the program and to build support for *Step ahead*. This focus on using and building networks aligns with the enabling leadership model proposed by Falk and Mulford, which is most likely to facilitate the growth of social capital (Falk and Mulford forthcoming).

Our case study provides a number of examples of school leadership fostering the leadership capacity of school and community members. For example, the initiative for *Step ahead* came from two staff members who were encouraged to take an active role in making the vision a reality. The *Step ahead* coordinator has been encouraged to draw on her wide networks within and outside the community to develop the program and ensure its sustainability. This person has also contributed significantly to the development of social capital within the community, because of her willingness to use her broad internal and external linkages and because of her links with the past, through involvement in the planning and implementation of the program from its inception. She is also contributing to development in the future, through involvement in a number of community planning groups including the proposed skills centre planning committee. These findings are consistent with the literature, noting that the dimensions of internality-externality, and historicity-futuricity, are important in helping to build community social capital (Falk and Kilpatrick 2000).

Transformational and distributive leadership within the school fosters organisational learning, which indicates being able to take initiatives and risks (Silins and Mulford cited in Hallinger et al forthcoming). The school's willingness to take risks, as well as strong school and community commitment to change, provided the motivation to push the boundaries in relation to funding guidelines and the length of the school day, for example. It also provided the motivation to appoint a business person, and not a trained educator, to the position of *Step ahead* coordinator. The benefits of such an appointment have more than justified the risk, as the VET coordinator utilises her skills in relationship building, especially in relation to Indigenous and non-Indigenous groups, for the benefit of the community.

By fostering broad-based involvement in the leadership process, and by demonstrating a willingness to think outside the box and push boundaries, Cooktown State School has ensured that the particular needs of the community have been met. Visionary school leadership, not unlike the new model of enabling leadership proposed by Falk and Mulford (forthcoming), has played a key role in achieving this outcome.

Conclusion

In attempting to find local solutions to local concerns, communities need to utilise all available internal and external resources, and must have the courage to take risks and push boundaries. This paper supports the argument that the school is integral to the process. It also demonstrates how a school leadership process utilising both transformational and enabling leadership practices, influences the extent of the school's contributions to its community. When rural schools play an integral role in their community's development, the likelihood of community sustainability as instanced by the case described in this paper, is increased.

Notes

1. For the purposes of this paper, the terms 'rural' and 'remote' will be used synonymously.

Acknowledgements

This work was supported by the Rural Industries Research and Development Corporation.

References

Australian Bureau of Statistics (1998) Integrated regional database, CD-ROM. Canberra: Australian Bureau of Statistics.

Babbie E (1998) The practice of social research (eighth edition). Melbourne: Wadsworth.

Barker R A (1997) How can we train leaders if we do not know what leadership is? Human Relations, vol 50, no 4, pp 343(362.

Burns R B (1997) Introduction to research methods (third edition). South Melbourne: Addison Wesley Longman.

Chiswell M, Stafford J, Stokes H and Holdsworth R (2001) Vocational education and training in small rural school communities. Leabrook, South Australia: National Centre for Vocational Education Research.

Centre for Research and Learning in Regional Australia (2000) Managing change through VET: the role of vocational education and training in regional Australia. Centre for Research and Learning in Regional Australia, University of Tasmania, Launceston.

Duke D and Leithwood L (1994) Defining effective leadership for Connecticut's schools. Monograph prepared for the Connecticut Administrator Appraisal Project, University of Connecticut.

Dumbrell T (2000) Measuring the outcomes of vocational education and training. Leabrook, South Australia: National Centre for Vocational Education Research.

Falk I and Kilpatrick S (2000) What is social capital? A study of rural communities, Sociologica Ruralis, vol 40, no 1.

Falk I and Mulford W (2001) Enabling leadership: a new community leadership model. In I Falk (ed) Learning to manage change: developing rural communities for a local-global millennium. Leabrook, South Australia: National Centre for Vocational Education Research.

Figgis J (1998) Benefits to business through school industry partnerships. Surry Hills, New South Wales: Dusseldorp Skills Forum.

Frost M (2000) Releasing the genie: the impact of VET in schools on education. Curriculum Perspectives, vol 20, no 1, pp 45(50.

Johns S, Kilpatrick S, Falk I and Mulford B (2000) School contribution to rural communities: leadership issues. Discussion Paper D1/2000. Centre for Research and Learning in Regional Australia, University of Tasmania, Launceston.

Kilpatrick S, Bell R and Kilpatrick P (2000) Vocational education and training in rural schools: education for the community. Future Research, Research Futures - Proceedings of the third national conference of the Australian Vocational Education and Training Research Association, Alexandria, New South Wales.

Lambert L (1998) How to build leadership capacity. Educational Leadership, vol 55, no 7, pp 17(20.

Lane B and Dorfman D (1997, 30 June) Strengthening community networks: the basis for sustainable community renewal. http://www.nwrel.org/ruraled/Strengthening.html#d (accessed 16 December 1998).

Leithwood K and Duke D (1999) A century's quest to understand school leadership. In J Murphy and K S Louis (eds) Handbook of research on educational administration. Washington DC: American Educational Research Association, pp 45(72.

Miller B (1995) The role of rural schools in community development: policy issues and implications. Journal of Research in Rural Education, vol 11, no 3, pp 163-172.

Misko J (1999) Transition pathways: what happens to young people when they leave school. Leabrook, South Australia: National Centre for Vocational Education Research.

Mulford W (1994) Shaping tomorrow's schools. Monograph no 15. Melbourne: Australian Council for Educational Administration.

Peirce N and Johnson C (1997) Boundary crossers: community leadership for a global age. Maryland: Academy of Leadership Press.

Putnam R (1993) Making democracy work: civic traditions in modern Italy. Princeton, New Jersey: Princeton University Press.

Silins H and Mulford B (in press) Leadership and school results. In P Hallinger, K Leithwood, G Furman-Brown, K Riley, P Gonn and B Mulford (eds) International handbook of educational leadership and administration. Norwell, MA: Kluwer.

Silins H and Murray-Harvey R (1999) What makes a good secondary school? Journal of Educational Administration, vol 37, no 4, pp 329(344.

Step ahead: a Cooktown community initiative (1999) Queensland: Department of Education.

Contact details

Ian Falk
Email: ian.falk@utas.edu.au

Drivers of learning cultures within organisations: findings from case studies

Robyn Johnston and Geof Hawke

Research Centre for Vocational Education and Training, University of Technology, Sydney

The concept of a leaning culture has become a popular one in recent years, yet we still have little understanding of it outside the usually prescriptive exhortations that have been issued by a range of management gurus. This research, then, set out to look at a range of successful organisations that saw themselves as demonstrating aspects of a learning culture or who were moving towards it. These organisations were found to embody a highly variable array of features that they saw as associated with their new culture and these were closely linked to their particular environment and the forces that led them to adopt a new, learning-centred approach.

For many, the organisational changes they have adopted were ones in which a learning orientation emerged rather than being part of their original strategy. If this were to be typical of organisations more generally, it would have important implications for policy frameworks designed to inculcate a learning culture in Australian enterprises.

For almost two decades now, a recurrent theme in the rhetoric of organisations, industry and governments throughout the developed world has been the need for more highly skilled workforces. This is usually justified by the more competitive, global, knowledge-based economy in which organisations have to compete. To support this rhetoric there has been significant workforce and industry restructuring, and substantial revision of skill formation policies and training and education systems. At the same time, organisations have been exhorted both to display a more overt commitment to fostering learning amongst their employees and to promote the development of what has been termed 'a learning culture' as a means of increasing their productivity and demonstrating best practice performance.

Despite these calls and theorisation about the efficacy of establishing such cultures of learning in some of the organisational literature, there remains a lack of clarity as to what such a culture looks like in practice. Similarly, the factors that actually drive organisations to pursue such directions are somewhat cloudy. This paper attempts to make more transparent just how these constructs are enacted in organisations.

Research approach: gaining the perspectives of organisations

There is a substantial literature which has attempted to define and theorise the notion of a learning culture in a prescriptive manner (eg Coopey 1996; Denton 1998; Pedler et al 1991; Senge 1990). However, in undertaking this research, it was determined that it was important to elicit an understanding of the concept as it is enacted by organisations that see themselves as fostering a learning culture. Working from this position, it was seen from the outset that actual practice involves overlapping and socially constructed contextual phenomena, and that the concepts of a learning culture may be enacted in non-uniform practices and patterns.

Table 1: Characteristics of participating organisations

Organisation	Location	Industry	Size	Profit /not for profit	Market	Recent restructure
AstraZeneca Australia Manufacturing Division	New South Wales Metropolitan	Pharmaceutical Manufacturing	400	profit	international	amalgamation
Royal District Nursing Service	South Australia Metropolitan	Community services and health	400	not for profit	state-based	restructure
Banrock Wine and Wetland Centre	South Australia Regional	Agriculture	14-20	profit	international	amalgamation and restructure
BRL Hardy			1400			
Bartter Enterprises	New South Wales Regional	Agriculture	1500	profit	national	acquisition and restructure
Novell	New South Wales Metropolitan	Information Technology	150	profit	national (part of multi-national)	
Unley City Council	South Australia Metropolitan	Local Government	150	not for profit	local/ community	restructure and threats of amalgamation

For this reason, the following broad understanding of these concepts became a starting point for the research. A learning culture was seen as the existence of a set of attitudes, values, and practices within the organisation that supported and encouraged the continuing process of learning for the organisation and/or its members. Some of the organisations selected for this study have generated what they have claimed is a learning culture through the specific policies, specialised programs, corporate goals or organisational documentation they have established. In others, a learning culture could be seen as more a matter of leadership style and leadership behaviour that encouraged learning and change.

The research was based on the collection and analysis of data from organisations which were seen as prospering and either identified themselves as being committed to fostering learning, as having a learning culture or as being in the process of establishing a learning culture. This case selection strategy was seen as a meaningful way of surfacing how the participating organisations understood and enacted the notions of a commitment to learning and building a learning culture. By also selecting a range of very different organisations, the approach allowed for the expression of differences in the way in which these constructs operate in practice. Thus we had a way of interrogating the often unstated assumption that a learning culture is a homogenous concept which can be applied or transferred in some uniform fashion to any organisation.

Six organisations were selected that meet these criteria. They were drawn from a range of industries, and were of varying size and structure, located in both metropolitan and regional areas in New South Wales (NSW) and South Australia (SA). A final important criterion was that each participating organisation was prepared to provide researchers with access to employees (managers and staff) for research purposes. Table 1 provides an overview of the participating organisations.

Researchers initially made contact with an organisational representative to discuss the study and ascertain the organisation's position in terms of a commitment to learning and the extent to which it saw itself as having (or moving in the direction of establishing) a learning culture. It was through this key contact that arrangements for further research access was negotiated. Researchers used a loosely structured protocol that they had developed before commencing the case study research to guide interviews. In each organisation studied, up to four senior staff members were interviewed, and focus group meetings and individual interviews were conducted with other employees. Researchers also examined relevant organisational documentation as well as conducting site inspections. Data was then written into case study format, which was then used as a basis for cross-case analysis.

What did the learning organisations look like?

The 'commitment to learning' that was found in each of the participating organisations took on a variety of faces. However, two distinct groupings can be identified.

Formal learning systems

For some of the organisations, the major feature nominated as characterising the organisation's commitment to learning was the establishment (or expansion) of formal on- and off-the-job training or learning programs. In these organisations, a commitment to learning was seen as the efforts made by the organisation to provide employees with increased training opportunities. Some of these organisations established new training systems and structures and saw these as contributing to the building of a learning culture.

One such organisation (Bartters) actively participated in the national vocational education and training system. It established itself as a registered training organisation, accessed public funding for the development of workplace training programs, participated in the Government New Apprenticeship program, and had and formed new partnerships with external educational institutions for the delivery of some programs. This organisation implemented programs that allowed workers to formally learn both on and off the job, in both training classes and through self-paced modules that were linked with the national accreditation system. RPL systems were set up for experienced workers and opportunities were provided for staff at managerial level to gain qualifications through a project managed by the Rural Training Council of Australia.

A second organisation (the manufacturing division of AstraZeneca Australia) also had attempted to strengthen the culture of learning within the organisation by developing an innovative workbased learning and assessment system for its manufacturing staff. While this system has not been linked formally with a national accreditation system, it does provide employees with career progression opportunities and increased remuneration possibilities. One aspect of this system is an extensive induction program which manufacturing operators complete before formally working on the production line. Some of this program is provided through classroom-based learning. A large component of the program is offered through self-paced and self-starter modules. These modules encourage the learners to ask questions about process from more experienced operators. This approach is seen as having enhanced the confidence and skill of new employees, and as reducing the pressure on production managers when new employees join the production line. It is also seen as contributing to the development of staff, so that they actively participate in the regularly scheduled team meetings once they are assigned to a work team.

A major component of this division's commitment to learning is an assessment system that has been established to determine employees' skill acquisition. A set of increasingly more complex manufacturing skills has been defined in a series of skills progression matrices prepared for all positions within the manufacturing division. As part of this system, once employees can demonstrate (by completing formal assessment) tasks that they have achieved, they are rewarded with increased remuneration and new career opportunities. Much of the learning which is required of employees as part of this system is seen by the organisation as being best achieved informally, through participation in work teams and through discussion and collaborative problem solving, which takes place in the formally scheduled work team meetings. Data gathered through the organisation's quality system is used by work teams in these meetings to discuss problems and work on more effective or efficient methods of production. Employees are also able to develop higher level skills by seeking assignment to tasks where they work closely with more experienced colleagues.

Each work team in this organisation has been assigned a training specialist (known as a Learning Systems Manager), who attends work team meetings and works with both team supervisors and individuals to assist in skill formation processes. One such specialist commented about the role she played with the work team as follows:

> Anything that comes up in the production team - we are the contact. It doesn't mean the Learning Systems person can always solve the problem but we can help generate the solution.

Efforts have also been made in this organisation to better equip manufacturing managers for a managerial role. A workbased management development program requires participants to complete a major project that supports existing organisational needs either individually or in small groups. This has been developed with an external tertiary organisation.

Another organisation that has demonstrated its commitment to learning through the provision of formal skills acquisitions programs is the Australian division of the large multinational IT organisation Novell. This organisation has been active in developing certified programs for the use of its products in Australia, following the lead of its parent company. Most recently this organisation has been leading the IT industry in establishing certification programs as part of standard curriculum activities within a number of schools, universities and VET providers. Providers of these programs are encouraged to form strategic alliances with local businesses who are channel partners of Novell, so that students who have completed the certification programs are able to maximise the benefits of their training in the local business community. Senior members of this organisation have recently been involved in the development of IT industry training packages and are playing a role in the national training advisory body.

The organisation has also fairly recently established a program with a registered training organisation that delivers a wide range of programs and services for the IT industry, including career transition and workforce development programs. Key staff from both Novell and the training organisation have collaboratively identified a range of competences required by the industry generally, and Novell in particular. They have developed a 12 month training program to assist individuals in acquiring the identified competences. Participants selected for the program are required to have 3-5 years business experience before being admitted to the program, and are engaged by Novell for at least the twelve months of their development. Novell is also active in encouraging its channel partners involvement in this program. The program involves off-the-job training offered by the training company, followed by a period of on-the-job training in Novell. Participants are rotated through the different sections of Novell to provide them with a holistic understanding of the parent company and the range of work involved. This program goes beyond a limited technical focus; it attempts to develop participant's generic skills through presentations, problem-solving exercises and active participation in team meetings.

In each of the above organisations, a commitment to learning has involved provision of either increased learning, or assessment opportunities, by way of some formal learning or learning-related system. Completion of such learning or successful assessment of learning is linked to increased remuneration or career progression. In each of the above cases, there is also evidence of role change for the training and development staff. In these organisations, the training and development staff are now acting as internal organisational consultants rather than solely deliverers of a calendar of face-to-face training events. As consultants, these training and development staff may be involved in some delivery, but, just as often, they act as mentors or coaches while individuals are on-line or on the job. They are also responsible for assisting trainees/employees to complete self-managed modules, and arranging work tasks to assist in the required skills acquisition.

Organisational structures

In other organisations in this study, the nature of what is seen as an increased commitment to learning has taken on a more informal face. In at least half of the organisations studied, new organisational structures have been implemented that they believe foster learning. For example, in the local government authority, an organisational restructure saw the elimination of one division and the regrouping of various functions. This new structure required employees to engage in more collaborative teamwork that generated new forms of learning. Staff members reported that there was a significant increase in learning, as the restructure had required and made possible increased information sharing and informal mentoring. One staff member described the process of learning as follows:

> We usually come up with an idea about how it should be done and then if we hit a wall we'll always bring it up in team meetings, so, it's absolutely brainstorming and bouncing ideas off each other ...

In another organisation [the Royal District Nursing Service - RDNS], a revision of the services offered, and the establishment of new ways of working, were also nominated as significantly contributing to the establishment of a new culture of learning. New work practices saw more extensive staff and client consultation and a process of feedback to staff of all information gathered. It also resulted in the introduction of work performance standard setting and performance feedback measures in one section of the organisation — a model which the organisation is attempting to replicate in other divisions. In achieving this new way of working, the manager of this unit stated:

> I certainly wasn't confident taking on that project but the RDNS is very encouraging. We have achieved so much in the past year from making mistakes and learning and we've been supported through it. The organisation gives lots of positive feedback along the way.

The final organisation studied, a unit in an Australian based organisation operating in international markets, provided what could be seen, at least initially, as quite a different model for achieving a culture of learning. The parent company has a well-established training and development system that operates throughout many of its plants. However, the unit studied for this research provided a model for fostering a kind of entrepreneurial learning that was being strongly supported by the parent company. The launch of a new wine label became the catalyst for this somewhat different model of a learning culture. In launching the new label, the parent company sought to establish a firm link between its environmental work with wetland care in Australia and its new product line. This company had established an environmental education centre as part of its work for wetland care, and the linkage between the organisation's production and its concern for the environment has became part of the organisation's global marketing strategy.

The process of establishing the environmental education centre required considerable liaison with the local community, and provided opportunities for the organisation to learn from unusual circumstances and experiences. Staff were encouraged to take risks with ideas, and to look for new ways of doing things. There is an emphasis at the site on team action and open communication and, to a very large extent, there is an expectation that staff will take on leadership roles when opportunities arise that call on their specific expertise. In so doing, this organisation is seeking to promote a culture of adventure that seems to be linked to a policy of direct action. Through this, staff are encouraged to focus on the goals of the company and to think of ways to achieve these directly without seeking too much direction or endorsement from superiors. In this organisation, learning is more about being open to innovation - sometimes from improbable quarters. Staff are encouraged to find new ways of seeing things, new ways of doing things, linking things that had not been linked before and following possibilities. To achieve this, the company (and particularly the unit studied for the research) favours strong, open, interactive working teams as a major feature of its management structure.

A more diverse picture

The vignettes presented above represent only elements of the various 'learning cultures' that were apparent within the organisations. However, they reveal that organisations and their members interpret the idea of a commitment to learning or a learning culture quite differently. The vignettes — as with the fuller case studies — also reveal that such cultures are enacted differently within organisations. Thus the search for a uniform model that is easily transferred may not be appropriate in any attempt to encourage organisations to establish an increased commitment to learning.

Just as examining the nature of learning cultures in organisations reflects the complexity of that construct, a similar complexity can be seen when examining what has driven these organisations to embark upon a program of building their learning culture and in maintaining the climate of learning.

What drives a commitment to learning?

All organisations, perhaps not unexpectedly, indicated that they were facing the pressures of an increasingly competitive economic environment. For the organisations that were operating in national or international markets, there was a need to achieve effective and efficient production and distribution, in order to maintain or extend their reach in the more aggressive markets in which they were now operating. For the not-for-profit organisations - more locally and service-oriented - there were still what could be seen as competitive pressures, although these took a different form. The not-for-profit organisations were experiencing the pressures of new administrative systems and more commercially-oriented models of management. Both also were feeling the pressures of budgets that are more restricted, and a need to deliver more and improved services required by their clients. Participants from the organisations nominated these pressures as significant drivers of the need for new forms of learning.

A second consistently nominated factor had to do with staff availability. In several of the organisations there was a need not only to acquire staff with appropriate work skills, but also to retain them. Some of the participating organisations needed, at least initially, to acquire staff with an appropriate mix of technical skills. In other organisations, the need was to acquire and retain staff with a new mindset about work, the capacity to embrace new understandings of how work was to be conducted, and a willingness to accept greater autonomy and responsibility for work output.

In other organisations, the structures created by them - either in terms of management systems or work organisation - acted as drivers of this new culture. For example, in several of the organisations, a much greater emphasis on teamwork and team generation of solutions or ways of working was contributing to a newer understanding of learning. In other organisations, structures related to rewarding learning through workplace promotion or increased remuneration were encouraging employees to accept more responsibility for their own work-related learning.

Finally, providing employees with more feedback about their own, their team's or the organisation's performance was having a stimulating effect in fostering learning. In at least two organisations, performance feedback technology was being used to provide work teams with more data about their performance, and the performance of the organisation and was used as a basis for ongoing decision making about work processes. Managers and staff nominated such an approach as both a feature and a driver of the cultures that were emerging within those organisations. In a similar vein, for several organisations, the development of documentation detailing the performance levels required was also nominated as a feature that characterised the new culture as well as a driver of the culture.

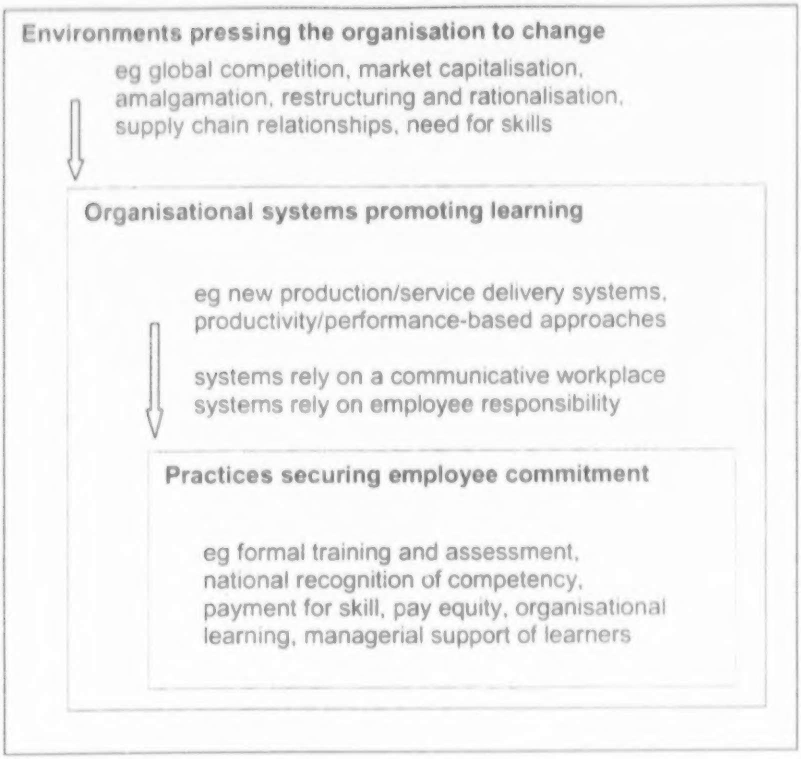
A possible model

In making sense of the case studies, it is helpful to attempt a depiction of the kind of processes at work in driving the cultures of learning as they exist in the six organisations. While such a depiction oversimplifies the complexity of the processes that the research has captured, it does help portray the elements that have contributed to building and maintaining the learning cultures in the organisations studied. Figure 1 therefore attempts to show how the learning culture of the organisation is embedded within the systems, employee interactions and work practices of the participating organisations.

This model shows how the enterprises are adapting to a changing environment in response to increasingly competitive market pressures. These press enterprises to develop organisational systems that enable them to adapt, survive and prosper. The catalysts emerging from the competitive environment (eg organisational restructure, rationalisation, acquisition, other competitors, changing trade arrangements and corporatisation) tend to demand work-related learning by employees. Moreover, conditions of employment require not only technical skills, but also capacity to adjust to new ways of working, and to some extent a capacity for adaptability. In such an environment, employees are expected to demonstrate a capability for ongoing learning to meet the demands of the more competitive environment.

To manage in such an environment there is also pressure on organisations to develop systems that, while primarily designed to promote productivity, also promote learning that enables employees to adapt to changing work demands. These systems require or enable employees to take more responsibility for a wider range of outputs, and this is regarded by organisations as part of the learning process they require. They allow for, and demand, increased communication between employees about work, and they promote the capacity of employees for decision making.

Figure 1. Dimensions of learning culture


Environments pressing the organisation to change
eg global competition, market capitalisation, amalgamation, restructuring and rationalisation, supply chain relationships, need for skills
Organisational systems promoting learning
eg new production/service delivery systems, productivity/performance-based approaches
systems rely on a communicative workplace
systems rely on employee responsibility
Practices securing employee commitment
eg formal training and assessment, national recognition of competency, payment for skill, pay equity, organisational learning, managerial support of learners

Consequently, there is systematic encouragement of more open communication and the emergence of a decision-making climate in which employees are *expected* to contribute. This is reinforced through both enterprise philosophy and manager-modelled behaviour. In such organisations, employees actively learn from each other through informal, team or workplace group discussion and through problem solving based on data collected or formal and informal consultation. As part of the process, the traditional providers of learning in organisations – the training and development specialists – are experiencing a change in both their role and their skill set. There is evidence that these practitioners are moving from being providers of learning in the narrow sense, towards assuming a broader role of 'embedding' learning in work practices, work relationships and other organisational systems.

Hence, the systems instituted as part of the demand for enhanced performance are inherently also ones designed to promote learning. Thus learning is being 'instituted' (Solomon and McIntyre 2000) in the work process within new organisational settings.

This model therefore represents the development of learning in a certain way. It suggests that a learning culture is something achieved through deliberative arrangements designed to maximise productive work in a highly competitive environment. In these contexts, organisational systems have to be designed to support the development of employees if productivity goals are to be achieved. Importantly, it means that 'learning culture' does not arise through the exhortation of managers alone or the goodwill of employees who are persuaded that it is a good thing. Rather, it develops as a result of conscious organisational changes managed in directions that are seen to enhance the productivity of the organisation.

This has important ramifications for policy. It implies that our national goals of a 'learning Australia' are at least as likely to arise from changes in industrial relations or Industry Policy as they are from promoting traditional educational solutions.

References

Coopey J (1996) Crucial gaps in the learning organisation: power politics and ideology. In K Starkey (ed) How organisations learn. London: International Thompson Business Press.

Denton J (1998) Organizational learning and effectiveness. London: Routledge.

Peddler M, Boydell T and Burgoyne T (1991). The learning company: a strategy for sustainable development. Maidenhead UK: McGraw Hill.

Senge P (1990). The fifth discipline - the art and practice of the learning organisation. New York: Double Day.

Solomon N and McIntyre J (2000) A politics of curriculum in workbased learning. In C Symes and J McIntyre (eds) Working knowledge: higher education and the new vocationalism. Buckingham: SRHE and Open University Press.

Contact details

Robyn Johnston
Email: robyn.johnston@uts.edu.au

It's a judgment call ... and consistency isn't all it's cracked up to be

Anne Jones

Box Hill Institute/Monash University, Victoria

Judgement has become a significant area of interest in philosophy, rhetoric and popular culture (Beckett 2000; Hager 2000; Smith 1999). The need to make a 'judgement call' is often acknowledged with a sense of pride, almost as an affirmation of the worth of the speaker, an antidote to the alienation of the individual in the postmodern world (Sloop 1998). What then of the experience of technical and further education (TAFE) teachers in making assessment judgements in the post-curriculum age? Do they experience assessment judgements as autonomous and professionally empowering events? How do we prepare teachers to make good judgements? What sort of professional practices sustain wise judgements? This paper will explore these questions by providing some glimpses into the judgement experiences of two teams of TAFE teachers.

This study deals with the theoretical and practical tensions experienced by teachers making assessment judgements within the original competency-based training (CBT) paradigm and according to the assessment criteria incorporated into Training Packages[1]. On a theoretical level there has been widespread debate regarding the essential ambiguity or otherwise of documented units of competence and assessment criteria (Jones 2000). Numerous authors have indicated that the Training Packages and the associated Assessment Criteria provide 'thin' frameworks for delivering courses and making assessments of skill, let alone knowledge and understanding (Mulcahy 2000). The raison d'etre of national Training Packages is to ensure that valid, reliable and reproducible assessments are made in industry and on campus from Broome to Burnie. This is clear in the following extract from the ANTA[2] website.

Why use a Training Package?

> Training Packages provide your employees with qualifications which are recognised nationally. This means an individual who gained their qualification in Cairns has the same qualifications as a person who trained in Ballarat. A recognised qualification is therefore a guarantee that the skills of the employee (or potential employee) are:
>
> - formally recognised
> - consistent nationally across the industry or industry sector.
>
> (ANTA website: http://www.anta.gov.au/tp/)

The implicit value of 'consistency', particularly in assessment, is constantly emphasised in Australian National Training Authority (ANTA) documentation (see Appendix One). The concept of national qualifications both depends on, and promises to deliver, this notion of consistency.

However at a practical level, teachers work in the '... gulf between precept and practice ...' (Brown 2000). They navigate between the 'tick and flick' mythology surrounding competency based assessment versus the reality that CBA[3] requires a high degree of '... interpretation and judgement'.[4] The roadmaps provided to teachers, the documented competency standards and assessment criteria, equip them with very thin descriptions of the assessment judgement process. On the other hand, the lived experience of making assessment is a thick, social experience. Organisational and personal history and culture, the teacher's 'community of practice' (Wenger 1998), all provide a context within which teachers make judgements. Consequently assessment judgements vary between individual assessors within providers, let alone between providers and across state borders. This paper will explore assessment judgements made within two 'communities of practice' or groups of teachers to illustrate and tease out some of these issues.

Methodology

The interviews reported here are part of a larger group of long, semi-structured interviews with teachers and assessors in public and private providers and in industry. The interviews were transcribed and subjected to reflective and critical analysis to develop working hypotheses on the nature of vocational education and training (VET) practice in making assessment judgements. Analysis of six initial interviews suggested several themes that seemed worthy of further investigation. The social context in which assessment judgements were made appeared to be a particularly important factor informing decision making and assessment of competence. To further explore this theme, subsequent interviews were conducted with clusters of participants who worked together. Several interviews were also conducted with participants who, by the nature of their work, were forced to make assessment judgements in professionally isolated situations. In this paper we shall examine the stories of two teams: the Lawson Institute of TAFE Motor Mechanics teachers and the Franklin Institute of TAFE Disability and Aged Care teachers.

Lawson Institute of TAFE Motor Mechanics team

The Lawson Motor Mechanics team is located on a campus that was formerly a stand alone, mono-purpose college. It is situated in a manufacturing area with high a migrant population and high youth unemployment. The staff members interviewed were bitter about an enforced amalgamation, five years previously, which they regard as a takeover by Lawson...

> Our formal meetings ... which we have about once every three weeks ... we get together and have a big fat whinge generally at management, about how they're not doing their job, and how if they were doing their job, our job would be a lot easier. And because we've been taken over by Lawson we seem ... personally I call it ...we are the little brother of the relationship ... and it all happens up the road, nothing gets done down here ... We believe that head office[5] is taking all the cash ... **Shane**

The mood is cynical and depressed. Whilst I was interviewing, an administrative officer came around to do a room check for PETE[6] room occupancy statistics, eliciting instant resentment. Student numbers have been constantly falling in recent years, resources have been cut back and each informant alluded to literacy as a huge barrier to learning.

> ... and there was two heads of department and three or four SDAs[7]. In the last eight years that's dropped from two heads of department down to one program coordinator. We've gone from 22 to probably 13 staff ... 8,10, 6,

> probably 14 staff. So the number of staff have dropped, the number of apprentices have dropped from 110, 120 I suppose, down to motor mechanics have 48, the electricians have twelve, that's 60, so there's been a great drop. We've lost, over the last two months; we've lost two extra staff, because of natural attrition. One guy took a VDP[6]. **Shane**

The campus is still basically a mono-purpose automotive facility at a distance from the multi-disciplinary main campus. The staff tend only to have regular contact with each other and their students. They don't see much of management who are mostly on the main campus. They teach in adjacent classrooms or team-teach in one room; they have regular 'smoko' and lunch breaks together sitting around one large table in a staff room. Many of them have done this for more than ten years whilst their numbers and the numbers of students have shrunk.

> Our institute from our point of view is money driven. Get the people in, get the money in, so we can show a profit at the end of the year. Whether it's good or not so good for the apprentices is debatable but the managers say yeah you've done a good job. We've made hundreds of thousands of dollars of profit, so fantastic. Yet we feel it's a sausage factory, sausages in, sausages out. **Shane**

Franklin Institute of TAFE Disability and Aged Care team

The Franklin Institute City Campus team was suggested as an example of a team with a strong commitment to professional practice. Franklin has five campuses formed by a series of amalgamations and restructures. The City Campus Disability and Aged Care team is about to be reorganised as part of yet another restructure. The staff will remain physically close in a shared office but the two courses they teach will be allocated to different departments. Most of them already teach small loads in other departments - now everyone's load will be spread. Their office is on the third floor of a busy multi-storey building located near a fashionable retail precinct. The interior of the building is painted traditional 'TAFE' grey, but there are cheerful pictures and ornaments in the offices.

The team consists of three contract teachers: *Felicia, Maggie* and *Mercedes*, and one sessional teacher (not interviewed) and their coordinator, *Jane*, who is about to leave teaching for a management job in human services. *Felicia, Maggie* and *Jane* have worked together for a long time: five years or more. The Certificate III in Community Services (Aged Care Work) that they teach together is also taught on another Franklin Campus, Rural Campus, located about 30 kilometres away.

> ... it means that that team of people will be split ... reasonably significantly. Disability stays here and Aged Care goes, and people's positions will be sort of half here and half there, so ... yeah, it will be interesting to see how they work team wise. I think geographically people will stay together, but it's really about where your allegiance is departmentally, and I think that can be quite fragmented, fragmenting really. **Jane**

Consistency in making assessment judgements

For both teams assessment judgements are not simple, nor are they consistent, reliable or reproducible. It is clear that individuals and teams make judgements within a social and historical context and that a range of problems need to be solved during the judgement process. The experience is thick and socially redolent. The act of making an assessment judgement also has ethical and tacit dimensions forming the gel in which the whole judgement process is solidified for the practitioner. Members of the Motor Mechanics team at Lawson demonstrated a kind of rugged individualism in their attitude to making assessment judgements. They freely acknowledge that individuals in the team apply differing standards when assessing students. Not only is each member proud of his/her own professional standard but most told me that their practice of assessing differentially prepares students for the 'real world', where standards also vary markedly.

> The teacher who, not normally teaches there, signs off … completes that module with the kid. There's very little time, very little opportunity, for me to go back and retest those students. There is no need, there is no place in our system for it. So only the kid that's finished half a job will I retest or go back and have a look. So a lot of kids are now realising that Mr Lauder's in the class, we'd better finish it all before he comes in. They go 'are you in the next session?' They go you beauty because I set the test a little bit harder. **Shane**

> Well, we've discussed it, but we've all got different standards … some say nah … I've had a student working for three days and they must know the entire … **Darren**

> The day you walk through the door I start to judge you, whether you like it or not you will be judged by me, and to my standard. Now whether that's a right thing or a wrong thing to do, somebody somewhere along the line is going to ring up and say what do I think of you? And I can only judge you on how you behave in this room … **Bruce**

> All the teachers are different and maybe some are a little bit soft and maybe some are a little bit too hard, but then again, that's the nature of where they're going to work in the real world too. They're going to run against people who are hard … and fussy and they're going to come across people where the other person's more mild and a little more … that, provided that it's not too far the other way and the person's just marking them off for nothing – and that's happened … **Bruce**

The Franklin staff are distinctly committed to being a strong team that consciously works through issues together and seeks to have a collective response. It is very important to these teachers that they agree on decisions like assessment judgements. The team discusses differences of opinion and individuals are prepared to make considerable compromises in order to reach consensus. Their assessment judgements are consistent within the team.

> Well I can't remember a time when we didn't actually work something out …I mean I might not have been altogether OK about it or someone else may not have, but I think that we actually come to some conclusion about it, yeah, but we agree really… **Felicia**

In comparison with Lawson where the unit of judgement is the individual teacher, at Franklin the unit of judgement is the team. At Lawson, inconsistency in making assessment judgements occurred between individuals; at Franklin it occurs between teams. The Franklin City Campus Team is aware that the content and underpinning philosophy of the Certificate III in Community Services (Aged Care Work) as they teach it differs from the approach used by their colleagues at the Franklin Rural

Campus. The City team follow a community-based model of Aged Care, whilst the Rural team support a clinical model. This difference in approach originated in the differing employment histories of team members on the two campuses. The teachers in the City team come largely from a community development background, whilst the members of the Rural team have been nurses and other paramedical workers.

> ... look I think a lot of it is about the original group of people whoever they were I suppose, and who we then employ and we tend to employ people to match our original group. So it would be unlikely, just as an example, the Aged Care area here in this area tends to have a bit more of a community based approach to aged services in some of the other areas, you know even other colleagues in another campus tend to take a bit more of a medical model approach because they're primarily the nurses who worked in that area ... so we would be reluctant to or unlikely to get someone who has a strongly medical model approach to Aged Care to work in our area, 'cause its not the approach that we take so it's ... you know, wherever that started I suppose ...
>
> **Jane**

Despite the amalgamation that brought these two teams into the one institution, there has not yet been any attempt to resolve the differing educational approaches of the two groups. This occurs to the extent that they acknowledge that assessment judgements may differ between the two teams of teachers.

> I guess the sorts of things we would want to come out of one of the Aged Care modules is that people would need to have an understanding of the broader sociological implications of aging I guess, and that doesn't need to be on any deep academic level but that broader thing of where ageism fits in. Why there is ageism. Why older people are treated the way they are, so that from our perspective we think that that's important that people know that so that when they work with people in a nursing home they can actually have an understanding of all this marginalised group of people and they are being removed and why is this here and why are people treated in that way, there's restraint and all sorts of things that happen to people and that's not just about ... maybe the [Rural Campus] people may well talk about the medical ...
>
> about how inappropriate that was and that *medically the correct treatment would be to do this, this and this, and how that was really poor practice ... They're absolutely right and I think both things are right, but in terms of the assessment I suppose, we would use a different assessment process.*
>
> **Jane**

On being asked about the impact of a national curriculum on their work one team member responded: *We haven't even got a state one and we haven't even got an institutional one really!*

The plot thickens

For teachers, the professional social context or community of practice in which they make an assessment judgement is clearly a significant determinant of the outcome of the judgement process. Many other factors interplay with this social context including tacit experiences and ethical concerns. A few examples follow:

> It's been signed off by the trainee and his ... employer and there's just no way where that the equipment is even available in the workshop, yet they've been signed off as to be competent. Some examples have been in

> brake and underbody where the managers says that the person is competent to do brake drum machining and they don't even have that equipment in the workshop. So its not … its not an isolated incidence, but you know, it is a problem with one where clearly they haven't had the opportunity to work on.
> **Darren**

> … the sort of manager of this big organisation had resigned and other person came in their place and I guess this person's agenda was more about … ensuring the organisation coming in on budget. So almost the first thing she had done was cut back people's hours, pays, a whole range of things, so staff then were involved in pretty significant industrial action. And that all happened in the middle of this assessment process. And that really coloured … how we assessed because the individuals we spoke to were reluctant to say anything positive at all about the organisation which meant that they didn't want to talk about any training they'd done, they just … they were really concerned about that. **Jane**

> … and you can identify that a person is competent by the way they go about their work, you cannot assess every … every competency that the employer has said that person is competent with. **Darren**

Implications for national training system

This research points to a gulf between the rhetoric of the Training Reform Agenda and teaching practice. The experiences of the teachers at Lawson and Franklin suggest that if we want consistency we are going to have to do more than mandate for it. Where teams of teachers were interviewed, it seemed that not only the present social context but also the history of the team impinged on assessment decisions. The team history, moreover, had unfolded in the greater social and political story of the provider and the system in which it operates. John Seely Brown made an apt comment when he said:

> Many organisations are willing to assume that complex tasks can be successfully mapped onto a set of simple, Tayloristic, canonical steps that can be followed without need of significant understanding or insight (and thus without need of significant investment in training …
> (Brown 2000)

The roadmaps supplied with Training Packages do not take account of the rich historical, social and ethical context in which real teachers and assessors make judgements. The act of judgement is not a simplistic instrumental activity but an ethical, attentive process (Smith 1999). If we do value consistency to any degree we are going to have to supply much thicker documents to guide assessors. They will need professional development and encouragement to form the vigorous communities that are needed to normalise judgements. We will also have to address system-wide structural problems like leadership and change management if being a valued team member is a precondition for making consistent judgements. At last year's AVETRA conference, Robin Booth rightly pointed out that there are no simple answers to improving consistency in assessment (Booth 2000).

We also need to consider the possibility that inconsistency has a place in making assessment judgements. We have only to consider the dissension that takes place in the High Court to realise that highly trained and experienced professionals do make different decisions. The individuals at Lawson and the City Campus team at Franklin knowingly took pride in making decisions that varied from those of their colleagues. We can view this behaviour as dysfunctional or we can see it as an extreme expression of professional autonomy that can also become a positive force in teaching and learning. Much previous research (Jones 2000) has shown that the perceived loss of autonomy has been seen as a problem by teachers adjusting successively to competency based assessment, national curriculum and Training Packages. Autonomy has been identified as an important condition for teacher commitment and, therefore, for effective teaching (Firestone 1993).

The National Training System has aligned with a prescriptive rather than a more individual, evolutionary approach to making assessment judgements. There is clear mismatch at present between the thinness of this approach as documented in the Training Package assessment criteria and the thickness of the learning environments in which assessment judgements are made. This dilemma needs to resolved at a national and state training system level. The resolution will not be easy because there are a whole raft of political questions involved in the problem. Whatever the solution, learners will only benefit from effective assessment judgements where there is some nurturance of professionalism in teachers and teaching communities.

Appendix one: excerpt from National Assessment Principles

These principles were endorsed by the Ministerial Council of the Australian National Training Authority on 22 May 1998: http://www.anta.gov.au/PUBS/ARF_ARRANGEMENTS/antaass.pdf.

Principle	Essential features
8. Assessment processes shall be valid, reliable, flexible and fair	8.1 Assessment processes must cover the broad range of skills and knowledge needed to demonstrate competency. 8.2 Assessment of competence should be a process which integrates knowledge and skills with their practical application. 8.3 During assessment, judgements to determine an individual's competence should, wherever practicable, be made on evidence gathered on a number of occasions and in a variety of contexts or situations. 8.4 Assessment processes should be monitored and reviewed to ensure that there is consistency in the interpretation of evidence. 8.5 Assessment should cover both the on- and off-the-job components of training. 8.6 Assessment processes should provide for the recognition of competencies no matter how, where or when they have been acquired. 8.7 Assessment processes should be made accessible to individuals so that they can proceed readily from one competency standard unit to another. 8.8 Assessment practices must be equitable for all groups or individuals. 8.9 Assessment procedures and the criteria for judging performance must be made clear to all individuals seeking assessment. 8.10 There should be a participatory approach to assessment. The process of assessment should be jointly developed/ agreed between the assessor and the assessee. 8.11 Opportunities must be provided to allow individuals to challenge assessment decisions, with provision for reassessment.

Notes

1. The phrase Training Package is by convention capitalised when used to denote the Training Package system established by the Australian National Training Authority as opposed to all other applications of this term.

2. ANTA = Australian National Training Authority.

3. CBA = competency based assessment.

4. Bull (1985) suggested that '...competency-based vocational education may work well when applied to tasks which tend to be repetitive - ie. those in which interpretation and judgement play a relatively small part'.

5. 'Head office' refers to the main Lawson campus.

6. Victorian Office of Post-Compulsory Education and Training.

7. SDA refers to 'senior duties allowance', an old promotion position in the Victorian TAFE system.

8. Voluntary Departure Package.

References

Beckett D and Paul H (2000) Making judgements as the basis for workplace learning: towards an epistemology of practice. International Journal of Lifelong Learning, vol 19, no 4, pp 300-311.

Booth R (2000) Competency based assessment - one minute wonder or here to stay? Canberra: AVETRA.

Brown J S and Paul D (2000) Organisational learning and communities-of-practice: towards a unified view of working, learning and innovation. In I Cross (ed) Strategic learning in a knowledge economy. US: Butterworth/Heinemann.

Bull H (1985) The use of behavioural objectives - a moral issue? Journal of Further and Higher Education, vol 9, pp 74-80.

Firestone W A and James S (1993) Teacher commitment, working conditions and differential incentive policies. Review of Educational Research, vol 63, no 4, pp 489-525.

Hager P (2000) Know-how and workplace practical judgement. Journal of Philosophy of Education, vol 34, no 2, pp 281-296.

Jones A (2000) The place of judgement in competency-based assessment. Vol 51, no 1, pp 145-160.

Mulcahy D (2000) Body matters in vocational education: the case of the competently trained. International Journal of Lifelong Education, vol 19, no 6, pp 506-524.

Sloop, J M and James P (1998) Judgement calls: rhetoric, politics and indeterminancy. Westview Press.

Smith R (1999) Paths of judgement; the revival of practical wisdom. Educational Philosophy and Theory, vol 31, no 3, pp 327 -340.

Wenger E (1998) Communities of practice: learning, meaning and identity. Cambridge: Cambridge University Press.

Contact details

Anne Jones
Email: ajones@bhtafe.edu.au

Abstract

Qualifications frameworks in Britain and Australia – a comparative note

Jack Keating
RMIT University

National qualifications frameworks are being used by a range of developed and developing nations as instruments to meet a range of policy and regulatory objectives in education and training. Australia and the UK, together with New Zealand, have been amongst the first nations to use these instruments. The paper examines these innovations across the two nations, including variations across the regions of Scotland and England, and Victoria and New South Wales. It partially locates these variations, and the potential effectiveness of qualifications frameworks, in the relationships between education and training systems and the state across the four regions.

Issues in VET research: current crisis and potential possibilities

Peter Kell
RMIT University, Victoria

Introduction and disclaimers

This paper is a polemic concerning questions about the future of vocational education and training (VET) research, the character and identity of VET researchers, the training of VET researchers and the development of theoretical and practical models which open up opportunities for collaborative partnerships between university-based and VET-based researchers.

The paper is a delayed response to many of the issues that Rod McDonald explored in his address to the 2000 AVETRA conference. This is not a rigorous empirical analysis of VET research or a highly complex argument about paradigm wars and the suitability of certain methodologies in VET research. It is also not the position of the AVETRA executive of which I am a member, but an entirely individual opinion.

It is an attempt to explore elements of a discussion about the environment in which VET researchers find themselves, look at developments in the past and start to look at new sets of opportunities. This paper will argue that the future of VET research is related to and influenced by changes to VET teachers' work, and new models and theoretical approaches to research are needed to account for this. This paper argues the urgency of these changes and suggests that the profession and the members of AVETRA face a series of considerable crises.

The discussion has been one that AVETRA has been struggling with since its inception in 1997 and addresses the false impression that the work of university and VET-based researchers is fundamentally different. As a person who has managed and taught in both higher education and TAFE, I am convinced the market conditions in both sectors are creating similar pressures, tendencies and outcomes which make the workplace and working life in both sectors very similar. The recognition of these similarities opens up questions about a more common identity for VET researchers. This is also linked to the crisis-ridden nature of the education training industry in Australia.

The crisis in the politics of state Australian education and training and VET research

Both the higher education and VET sectors are now squeezed and subject to contradictory objectives, multiple accountabilities, heightened expectations and diminished resources in an environment of uncertainty and frustration. It is a miracle that the Australian education system is working at all.

The crisis is plain for all to see. The evidence is here:

- The Commonwealth contribution to VET has fallen from close to $950m in 1997 to $825m in 1999 (NCVER 2000; NCVER 1999)
- Commonwealth expenditure as a percentage of GDP has gone down from .075% in 1996 to .058% in 2000-2001, and down further to below .055% in 2003-2004.
- Research and development expenditure has dropped from .043% as a percentage of GDP in 1990-1991 to .035% in 1998-1999.

All the expenditure graphs and diagrams look like alpine ski jumps progressing downwards. Australia now ranks so badly that in OECD terms, on combined expenditure we are only above Luxembourg, Japan and Greece.

Just to remain treading water, Australia would need to bring its expenditure up a further $5.1 billion or 18% per annum of current outlays.

While the inputs are falling, the demands on the system are not. The Australian Education Union (AEU) estimates that there will be a 5.7% increase in TAFE enrolments, and to counter balance the decline in funding, is demanding an increase of $310m.

The research training environment is little better and because of VET research's recent arrival in the research arena, the VET research community is in a particularly vulnerable position. Key changes include:

- Abolition of HECs-funded postgraduate research places and the introduction of an allocated level of 25,000 research places.
- Falls in participation levels in postgraduate coursework degrees in education and training of 25% after the introduction of full fees (Meyenn 1999).
- Australian Research Council funding, although being increased by $240m, will predominantly be directed to traditional science and technology-based faculties.

To cap off a challenging environment:

- VET research didn't rate a mention in the much vaunted federal government Innovations Statement.
- The frenzy around teacher shortages in the politically sensitive areas of primary and secondary schooling will mean that VET teacher training and research will be squeezed in the 'carve up' of teacher training funds. The increased popularity of VET in Schools programs will mean that there may be some integration with secondary teaching, providing some future opportunities.
- There is no real universal agreement on a minimum qualification for VET teachers. Indeed, the industry benchmark for teacher qualifications seems to be accepted as the Certificate IV in workplace training. This qualification level

is below significant parts of the VET profile in AQF levels 5-7. Some enlightened training organisations, under pressure from unions, have incorporated qualification ceilings as part of their enterprise agreements, but the tendency is towards a 'minimalist' line on qualifications.

- There is a greying of the VET teacher profile in TAFE, and this suggests that the next ten years will be a decade when the issues of renewal of a teaching workforce will occupy a new importance. Accompanying this will be an exploration of what work teachers might be doing in the context of new learning technologies and the changing nature of work generally.

Coupled with this is a highly risky politicised research environment characterised by high levels of political interference, vetting and sanitising. Research has been increasingly used as part of state 'image management' and as an instrument of government. The notion that publicly funded research is essentially part of the democratic process of informing citizens seems to be an unpopular notion, with bureaucrats and politicians anxious to avoid any criticisms of government performance. In the post-1996 era, the legitimacy of certain types of research has also been hysterically discredited. The Howard government and its allies have collectively criticised the 'black armband' history mentality surrounding revisionist and critical histories, and have actively intervened to prevent ARC grants going to projects that might be antipathetic to the government line.

This complex scenario now characterises the general research environment in Australia. It is an environment which is also typified by claims of a 'brain drain', as researchers flock overseas as a result of the frustration of a very unsympathetic intellectual environment, being lured by better pay conditions and research funds elsewhere.

The crisis of sponsorship, purpose and direction?

Publicly funded VET research has enjoyed a period of steady growth in activity since the late 1980s. The report *No Small Change* (McDonald 1993) acted as a catalyst for this in acting as both an audit on research at the time and a vehicle for developing a national strategy. The other prime move for growth was The Australian National Training Authority Research Advisory Council (ANTARAC), which distributed research funds in VET until 1996 when this role was undertaken by the National Centre for Vocational Education Research (NCVER). NCVER has been the managing agent for the National Research and Evaluation Strategy for VET 2001-2003 and has identified ten priority areas and allocated funding on a national basis.

Funding for VET broadly spans three areas:

- The development of reference data on VET
- The funding of National Research Centres and National Projects
- The funding of targeted and open category grants on an annual basis.

The National VET research strategy closely shadowed the development of reforms in the VET sector, which have been broadly described as the National Training Reform Agenda (NTRA). The NTRA was arguably one of the most instrumental and interventionist policy developments of the labour years and this tradition has been continued by the coalition Howard government.

Ideologically committed to a de-regulationist approach that demanded a VET system with greater proximity to the needs of industry, the NTRA policy makers excluded educationalists, some unionists, small business, academics and VET teachers. The NTRA adopted a mantra of competition, privatisation, instrumental restructuring and unrelenting waves of reforms which has tended to confuse and alienate many stakeholders. It would be untrue to argue that there were no benefits, but it is also true to say the cost has been high.

In the context of this highly interventionist environment, the state research agenda naturally closely shadowed government priorities. While *No Small Change* (McDonald 1993) lamented the absence of a strong critique of developments in VET, it is unlikely that it will ever emerge from a state-funded research program which is closely aligned with policy implementation. In the context of contemporary public administration, research is seen as occupying a major role in image management.

It is interesting to look at the spread of funds in the National Research and Evaluation Council's (NREC) research in 2000. The break up reported in the latest AVETRA *Research Today* is as follows. There were 185 submissions

- Universities had 89 submissions and were successful in 16, having a 18% success rate.
- TAFE and private institutions submitted 36 and were successful, with seven having a success rate of 19%.
- Consultants submitted 46 proposals and won seven, with a 15 % success rate.
- Industry submitted seven and all were unsuccessful.

There are some interesting developments here, because for all the rhetoric of meeting industry needs, there is little evidence of this transferring to NREC grants. Perhaps industry partners are in consortia with universities, TAFE and private providers. TAFE and university success rates are almost equal in outcomes, although TAFE submit only 19% of submissions compared to universities who submit 48%.

On all counts the success rate is very low, and there must be a growing number of frustrated potential researchers out there. The success rate has remained fairly stable at 18%, which means there is a fail rate of 82%! (Gibb 2000). In the context of these developments, such programs as Framing the Future and Learnscope are predicably attracting applications which merge research and teaching.

If we look at the categories where this research funding is allocated (Gibb 2000), we see:

- 70% of funds went to priority areas
- 24% of funds were allocated in the open category (long-term priorities or 'priorities not yet nominated')
- 6% were in consolidation studies (short studies on identified gaps).

There are no special categories for equity and social inclusion, as these are embedded and mainstreamed within the overall program. The wisdom of this in the context of the sorts of debates concerning the 'great divide' in equality of opportunity in the Howard era suggests some need for a rethink.

This split of funds creates questions about the nature and character of the orientation of VET research and the formation of an identity and purpose of VET research that is discussed in the next two sections.

The crisis of future identities for VET researchers

The instrumental and rationalist nature of publicly funded research has created significant dilemmas for the role of researchers and intellectuals in the broadest sense. Aronowitz and Giroux (1993) have discussed the impact of the techno-rationality policy settings on the role of the intellectual and inquirer. They argue that there has been a shift towards what they term accommodating and hegemonic intellectuals and retreat from a critical discourse. They argue that the product of corporatist policy settings, rationing of scarce research resources and the techno-rational approach to administration have created a situation where silence and compliance are more valued than a critical voice. Habermas has described this tendency towards depoliticisation, arguing that the collapse of problematic issues to matters associated with a rational 'technological fix' acts to uncouple issues from the political process (Habermas 1990).

Aronowitz and Giroux (1993) highlight the danger of an uncritical research approach, where researchers are not aware of the process in which they are engaged and their enlistment as agents of the status quo. While these researchers argue they are dispassionate and objective - being removed from class, political and economic struggles - Aronowitz and Giroux suggest this is a spurious concept of scientific objectivity. They suggest that objectivity hides the colonisation of research agenda and research findings by major corporate interests and the interconnectivity and interdependence between capital, government and the producers of knowledge. The close relationship between the researcher and the public sector has, according to Aronowitz and Giroux, resulted in a collapse of the role of researcher and its replacement with a role of policy consultant. In this context, opportunities for social change is minimised and timid complicity maximised.

There are some serious questions about these changes that obscure the purpose and focus of the roles of all researchers. But it has serious implications for VET researchers in an environment dominated by 'evaluative' research that is mostly directed to the science of policy rather than a wider exploration of issues.

There is also a prevailing view that unless research is immediately 'useful' in addressing the needs of government, it lacks legitimacy. This attitude fails to appreciate the fact that research may address multiple audiences and that there is often a delay factor on the 'pick up' research. It is also an attitude that does little to encourage a diversity of viewpoints on the purpose and rationale of research in a democratic society.

In short there is a crisis of identity. This crisis sees:

- Research as evaluative and researchers as policy consultants running the risk of becoming captured by a public relations agenda that mutes problematic issues and is subject to vetting and sanitising. Far worse is the temptation towards suppression, a tendency that goes to the very heart of a democratic and open society. This was summarised by one respondent to Terri Seddon's 1999 address as 'blind systemic resistance'.

- Instrumental and evaluative research also suppresses broader questions about human rights, ecology, poverty, sexual discrimination, racism and questions concerning the more questionable outcomes of globalisation. Even though many funded projects deal with these issues, there is an anxiety and tension about how they should be present to avoid offending government elites.

- Research being developed and directed exclusively to an industry and government constituency runs the risk of preventing a meaningful interface with the practitioners and teachers in the VET system. This is a major issue in VET research, where the NTRA has been responsible for the disenfranchisement of VET teachers from many aspects of their professional role. The extent to which university researchers and consultants have been co-opted to conduct research 'on' VET teachers has been a disturbing trend, which has a divisive and corrosive impact on the ability for VET researchers in TAFE and universities to forge a unified identity.

Future opportunities

The future for VET researchers is increasingly related to the future changes to the work of teachers and VET practitioners. Many of the opportunities for postgraduate research are shrinking and success in competitive grants has such low odds of success that it is difficult to see where future developments will come from. There are several opportunities that also involve a broader notion of VET researchers and teachers' roles.

The roles of VET teachers are being reshaped profoundly by new learning technologies, the changing nature of work and the changing nature of their own organisations. This now includes an orientation to globalisation and working in culturally diverse contexts. This high level of change introduces new possibilities for merging aspects of improvement and innovation in their work to a research agenda. The phenomena of change and the processes and outcomes of these changes provide fertile opportunities for a new research culture that involves new forms of partnership between academics, researchers, practitioners, teachers and policy makers. In a way, the level of change is so profound for all partners that there is now a mutual interest in exploring new and creative ways of developing and maintaining VET research capacity.

One example that I can see emerging is the opportunities for very different relationships between universities and VET practitioners. The recent popularity of research by project degrees sees some important developments. These degrees not only provide an important credentialling function for VET practitioners, they also have the potential to reshape power relationships surrounding knowledge. Work-based degrees provide the opportunity for participants to theorise their experience of change and to re-theorise the power relationships around work and workplaces. Universities have been forced to renovate and re-conceptualise their own views and practices concerning the teaching of research degrees, to include learning groups and clustered supervision etc in forms of action research which challenge the positivist notions of research that dominate VET.

Most importantly, there is a heightened opportunity to develop cooperative and collaborative research partnerships across the sectors that legitimate and theorise the workplace knowledge of practitioners, participants and the key stakeholders in the VET sector.

These sort of mutual partnerships need also to span simplistic binaries around notions of applied and theoretical research and seek to establish a role for VET researchers that challenges the instrumental perspectives of research.

The notion of the transformative intellectual proposed by Aronowitz and Giroux provides a signpost for future VET researchers, because their notion of the 'transformative intellectual' incorporates a commitment to collective forms of organisation that involves and engages all levels of educational professionals in projects. They argue for the establishment of collaborative social projects that engage the nature of school life. In the context of VET, this would provide opportunities for those involved in training. According to Aronowitz and Giroux, this would also provide opportunities to redefine the traditional practice and theory relationship within the context of alliances with each other. This overcomes the differentiation between the theoretical production of knowledge and practical knowledge, and assists to develop common social and political goals. It helps promote and trigger an integration between the political, the pedagogical and the analysis of issues in broader terms rather than narrow instrumental priorities of bureaucrats and reactionary politicians. This means that issues that have been excluded from instrumental policy settings such as human rights, gender equity, poverty alleviation, racial equality and the impact of globalisation may be resituated within a broader, more democratic research agenda.

An orientation around the notion of the transformative intellectual addresses one of the conclusions that John Stevenson arrived at in his summary of papers published in the Australia and New Zealand Journal of Vocational Research from 1993-1999. Stevenson concluded that

> It reinforces the need to redress the top down technological driven, short term focus of vocational curriculum, re-elevate the needs of learners, redress the problems in vocational knowledge development and assessment and overcome the stresses in the vocational education system caused by the nature and implementation strategies of the corporatist reform movement, this work is important both for practice and for informing policy (Stevenson 1999 p 122)

It is also important because the strategy resituates VET research in the broader dimensions of the political crisis that has engulfed Australian education and training.

References

Australian Bureau of Statistics (1999) Cat 8109.0. Canberra: Australian Government Publishing Service, pp 5-6.

Aronowitz S and Giroux H (1993) Education still under siege. New York: Bergin and Garvey.

AVETRA (2001) Research Today, March, p 2.

DETYA (2000) Budget Paper 1 (2000-01). Canberra: Australian Government Publishing Service.

Gibb J (2000) National Research and Evaluation Program. Proceedings of the Third Annual Conference of the Australian Vocational Education Research Association, Canberra, Australia, 23-24 March, pp 115-124.

Habermas J (1990) Theory of communicative theory: a critique of functionalist reason. New York: Polity.

Mc Donald R, Hayton G, Gonczci A and Hager P (1993) No small change: proposals for a research and development strategy for vocational education and training in Australia. Sydney: Sydney University of Technology.

Meyenn R (1999) Identifying challenges: initial and continuing education for the 21st Century. Report of the Working Party on the Impact of National Higher Education Initiatives on Teacher Quality in New South Wales. Sydney, New South Wales: Ministers Advisory Council on the Quality of Teaching.

Stevenson J (1999) Seven years of vocational education research: a review of material published in the Australia and New Zealand Journal of Vocational Research. The Australia and New Zealand Journal of Vocational Research, vol 8, no 1, pp 93-135.

Seddon T (1999) Advancing VET research: dilemmas and directions. Proceedings of the Second Annual Conference of the Australian Vocational Education Research Association, Melbourne, Australia, 11-12 February 1999, pp 12-20.

Contact details

Associate Professor Peter Kell
Head of Department of Industry,
Professional and Adult Education
RMIT University
PO Box 71, Bundoora
Victoria 3083
Ph: +61 3 9925 7843
Fax: +61 3 9925 7818
Email: peter.kell@rmit.edu.au

Action research as action learning as action research as action learning ... at multiple levels in adult education

Lola Krogh

Canberra Institute of Technology, Australian Capital Territory

The Department of Community Development, its staff and students have become a network of people involved in using action research as action learning to generate experiential, collaborative learning. We are using action research and action learning processes widely. The processes are used and shared by individuals and groups within our courses to create local and personal change and to promote a more equitable, productive and sustainable learning community.

One key intention is to encourage development that crosses the boundaries of traditional disciplines and recognises the common elements of action learning and action research.

Students and staff involved in action research projects as action learning are supported through the provision of opportunities to access information, enhance skills and engage in experiential, collaborative and reflective learning and personal development processes.

In researching and evaluating the application of action research as an action learning tool, and its exponential impact on the learning of students, educators, industry and training providers, the researcher has explored how that learning, in turn, impacts on research, learners and educators and the community. It has proven to be an evolutionary process.

Theoretical background

Freire, in the late 1960s, Mezirow, in the early 1980s - and others – have stressed that the heart of all learning lies in the way we process experience, in particular our critical reflection of experience. They spoke of learning as a cycle that begins with experience, continues with reflection and later leads to action, which itself becomes a concrete experience for reflection.

Both action research and action learning may be compared to experiential learning. As usually described, it is a process for drawing learning from experience. The experience can be something that is taking place, or more often is set up for the occasion by a trainer or facilitator. Clearly, both action research and action learning are about learning from experience. The experience is usually drawn from some task assumed by a person or team.

'Experiential' learning is not just 'fieldwork' or 'praxis' (the connecting of learning to real life situations); although it is the basis for these approaches to learning, it is a theory that defines the cognitive processes of learning (Kelly 1997).

Action Research as Action Learning in adult education provides a theoretical methodological framework for the practice of learning, teaching and professional development. The model of teaching and learning we have developed is located in the alternative, non-positivist paradigm - based on theories of learning and knowing, such as Revans' *Action Learning;* Lewin's *Action Research;* and Kolb's *Experiential Learning.*

We would agree with Bob Dick when he states that

> ...When one considers the terms Action Research, Action Learning and Experiential Learning it can be determined that all are cyclic: all involve action and reflection on that action: all have learning as one of their goals. When considering action research and action learning it can be seen that in each: - action informs reflection and is informed by it. The reflection produces the learning (in action learning) or research (in action research)... (Dick 1997)

The process we have developed, with its emphasis on the learning through reflection on experience, involves the learner-practitioner in going through a sequence of actions indistinguishable from those of the action research spiral.

Historical background to the project

This series of projects had their origins in the staff room of the Department of Community Development in 1996. The original project, which is discussed in 'Following the 'Yellow Brick Road': initiatives in competency-based assessment in welfare', expanded from a brief discussion to a pilot program conducted in 1997 and has in turn extended through 1998/2000 to become an integral part of the assessment processes and delivery structure of the Department of Community Development. The focus began with a search for a valid assessment process that would provide grading options for our Diploma students and emerged as an expedition of discovery into and the endorsement of an effective alternative course delivery system. The change from a norm-referenced, curriculum-based program to a competency-based, criteria-referenced program provided the momentum for this initial project.

This revolutionary change in attitudes and approaches signalled the shift towards greater involvement of students in their own learning within their own resources, and an expectation of an investment of themselves in their own learning. I contend that best practice embraces these principles. Teacher and student have a shared responsibility in the education processes.

These projects have been discussed and analysed in previous papers by the writer and are available online at http://lola.krogh.com/. They include:

- Lola Krogh - *Lifelong learning in the new millennium: a shared responsibility approach,* presented at the AVETRA conference, Canberra 2000;

- Lola Krogh - *Weaving a seamless fabric: using flexibility, innovative pathways, technology and a cluster of industry and academic partnerships to skill the Social and Community Services Industry,* presented at the IVETA 'Skilling a Small Planet' Conference, Sydney 1999;

- Berwyn Clayton and Lola Krogh - *Flexible training strategies for social and community services: a case study*, presented at the NCVER Conference, Sydney, 1999;

- Satch Campbell, Lola Krogh and Terry Smith - *Moving learning from the classroom to the community*, presented at the Learning Communities Conference, Tasmania, 1998; and

- Lola Krogh - *Following the 'Yellow-Brick Road': initiatives in competency-based assessment in welfare*, Occasional Paper # 21, CIT Institute Assessment Project, 1998.

The wide range of Workbased Learning Projects completed by students in the Community Services field over the past three years has been evaluated through student and teacher learning experiences and draws from reflective practice. During the three-year research period, continual reflection has been done to analyse the spiralling chain of *action research as action learning* that it evaluates. It draws on insights from researchers, adult learners, teachers and community agencies and community members that have been active participants in the processes.

The approach

In the field of Social and Community Services, workers are interventionists. It follows that students in that field completing Workbased Action Research Learning Projects become participatory action researchers as practitioners and, as interventionists, are seeking to help improve client systems. Our department contends that lasting improvement requires that the participatory action researcher help clients to change themselves, so that their interactions will create the necessary conditions for inquiry and learning. The goals that are set for the projects include those of contributing to the practical improvement of problem situations and to developing public knowledge. The process of participatory action research aims to develop the self-help competencies of people, communities, and/or agencies facing issues.

'... Action research has been used before in many areas where an understanding of complex social situations has been sought in order to improve the quality of life. Among these are industrial, health and community work settings. Kurt Lewin, often cited as the originator of action research...' (McKernan 1991), used the methodology in his work with people affected by post-war social problems. This methodology promotes empowerment. We define empowerment as the process by which people learn, through active participation in the relationships, events and institutions that affect their lives, to develop and apply their capacity to transform themselves and the world in which they live. The community-based projects being completed in the Department of Community Development are most effective in achieving this outcome for the community of Canberra and its environs.

The concept of 'learning by doing', in which learning is perceived as experiential, reflective and reflexive, is fundamental to this approach. It recognises that people learn through the active adaptation of their existing knowledge in response to their experiences with other people and their environment. Moreover, the process of building on experience is a natural one for most people and action research provides a framework for formalising and making this process more effective.

The teaching strategy we decided upon uses experiential and constructivist learning principles (Boud et al 1985; Duffy and Jonassen 1992; Kolb 1984). Students are engaged in participative, problem-solving, community-based projects where those doing the research and those doing the learning are one and the same.

Students' projects are an individual or group-based collaborative supported by: the use of communication technologies such as electronic mail, asynchronous discussion forums and synchronous chat; print-based study guides; workplace mentors; IT access; tutorials and workshops. A range of individually based, workplace-relevant learning activities complements this. Students are provided with a range of online information resources, and have access to tutor support either individually or in groups as requested. Access is provided via telephone, electronic mail and face-to-face meetings as necessary, and can either be on-campus or in the workplace.

Learning partnerships

In *Individual lifelong learning accounts: towards a learning revolution*, Smith and Spurling argue that the existing fragmented, provider-led arrangements for education and training must be replaced by a responsive, learner-led system; and that a culture of lifelong learning must be developed throughout the population.

This view places the onus on learning communities, academic institutions and adult educators to create learning opportunities for adults; opportunities involving the key factors of best practice in education provision that incorporate innovative approaches that meet the learning needs of all adults. This needs to be achieved while grappling with the impacts of changing social relations in the economic, political, social, cultural and environmental areas of the world.

Such an innovative approach to learning was the beginning of a move towards a sharing of responsibility in the development of learning partnerships between student and teacher; student and workplace; and student, teacher and industry. The participants pictured at right are involved in a Learning Partnership with their workplace. They are part of a workplace team that are currently studying in the workplace and attending a weekly workshop to complete a work-specific Certificate IV in Child Protection, Statutory Supervision and Juvenile Justice. The induction course for this workplace was compiled with reference to approved National Competencies for this specific area. In turn, the National Competencies were mapped to existing curriculum-based modules to promote and maintain articulation. This study program was developed in liaison with the participants, the workplace management and our department, and involves assessment across competencies using action research projects as an assessment tool. These flexible strategies have allowed learners the opportunity to increasingly accept more responsibility and control over the development of their own learning. It also promotes participation and ownership for the participants and the employer. The purpose of this innovative approach is to encourage learners to invest more of themselves in their own learning and thus enhance the desired sense of shared responsibility.

Bob Dick states that

> ...current practice more often now is to set up an action learning program within one organisation. It is not unusual for a team to consist of people with a common task or problem ... (Dick 1997)

The participants pictured at left are involved in Workbased Action Research Learning Projects for their final assessment in the Diploma of Community Services – Welfare Studies.

Each of these students is involved in a different project in partnership with a community agency. In this action learning process, each participant draws different learning from a different experience that they share in tutorials or workshops. They are individuals involved in an action research team where they draw collective learning from a collective experience. Their action research may seek a different outcome but the learning, as they reflect on the process involved as a team, is a collective and similar experience.

Evaluation process

Essentially it is a mixture of 'process' and 'outcome' evaluation. As there were limited resources to conduct the evaluation, a methodology that comprises both 'process' and 'outcome' evaluation components was adopted.

The aim of the evaluation, as indicated by the title, is broad, covering a range of issues over a three-year period. It aims to identify the impact of action research as an action-learning tool in terms of the perspectives, thoughts and observations of those involved at multiple levels of adult education. It aims to evaluate if and how action research as an action learning process contributes to workplace learning for individuals and for the organisation.

The questions focused on the following areas:

- the role of the respondent with regard to the action research project
- a personal summary of the assessment projects they were involved in
- a summary of the outcomes, both expected and unexpected
- who was learning (based on personal observations and reflections)
- what was being learned
- the evidence that learning had occurred
- the value of the learning experience for organisations, self, other staff members, the students, the teachers and the VET training provider
- advice to other VET practitioners and/or organisations who may be contemplating using action research projects as action learning experiences.

The evaluation methodology comprised the following components:

- survey of the workers/students involved in the projects
- survey of the management involved in the workplaces before, during and after training delivery
- survey of the training facilitators
- survey of those involved in the Project Assessment Presentation panels

- qualitative interviews with the workers/students involved in the action research learning projects
- qualitative interviews with the management involved in the workplace before, during and after training delivery
- qualitative interviews with the training facilitators
- qualitative interviews with the agency field supervisors.

All interviews were conducted on a basis of confidentiality, using a semi-structured interview schedule.

Roles of the respondents

The roles of the respondents were wide and varied. Some were involved with TAFE students and others were involved with training for teaching staff. The respondents stated that they were: middle managers with the RTO, such as Head of Department; facilitators for middle managers in staff development; managers of students completing projects for assessment; project supervisors with the training provider and the workplaces; tutorial and workshop facilitators; students; community agency managers; community members; and panel presentation assessors. Their major role was seen as introducing the concept and providing activities that encouraged critical reflection on their experiences, alongside support at all levels.

Summary of the assessment projects

In the case of teachers, projects were completed for their own departments/workplaces. Students completed projects as their final assessment piece as final-year students, or as holistic assessment pieces over a range of modules being studied for workplace specific training.

Comments in this category included:

- 'As a teacher/facilitator I believe this process has opened up many avenues for effective assessment'
- 'I believe they have brought the gap between theory and practice together'
- 'They are an excellent learning tool which gives back to the agency or field useful products or research data'
- 'It is fantastic to see the concept of adult education transforming individuals - to see them moving from fear and reluctance into endorsement and commitment to study is remarkable'
- 'They are challenging and a worthwhile learning experience'
- 'They build self-confidence'
- 'I thought I could do it, but after doing this project I know I can'
- 'They are valuable to the community and provide new and innovative resources'
- 'They provide avenues for the completion of much needed research projects for our agency and are much more valuable than student placements'
- 'The action research projects allow the development of learning partnerships between teacher and student and encourage responsibility for learning'

The outcomes, both expected and unexpected

Planned and expected

In summary, the respondents indicated that reflection becomes part of practice, so the model develops reflective practitioners and improves current practices. This in turn leads to professional and personal growth where we are developing a more educated workforce delivering performance-related outcomes for the organisation. All respondents felt that there were measurable changes in staff performance and understanding of theoretical concepts and the incorporation of practice delivery outcomes. In general, students felt that completing an action research project pulled the whole course together, validated their learning and was an integrated experience of theory and practice - more experience and learning than they could get in a classroom. Each year, managers and field supervisors are surprised at how students always rise to the realities and the challenges that the projects place on them.

Unexpected

One of the biggest surprises when it comes to outcomes seems to be the high degree of personal growth. Many respondents were surprised at the value and power of the networking and support established within the group and in the organisation/ industry.

The high standards sought and reached of the projects were mentioned several times. Student comments included the following:

- 'I learned more than I expected'
- 'I am surprised how far my confidence has grown'
- 'The whole process challenged me to confront my personal values and attitudes'
- 'I developed the ability to deal with government bodies, other agencies and social and community demands while remaining professional'

It was extremely interesting to find that those that sat on assessment panels indicated that values and attitudes become transparent through the assessment presentations. This indicated that the model could be capable of creating a shift, where traditionally non-assessable criteria become evident and assessable.

Workplace managers in particular were pleased to see the evolution and increase of worker perceptions of their own professionalism and the realisation that professionalism is not only the domain of other agencies. There was a high degree of recognition that staff morale had risen and that workers were more motivated towards organisational goals and further study.

The learning experience

Observations and reflections of who learned

Learning, it seems, has been very broad and goes beyond the participants. Participants, supervisors, peers, teachers, facilitators, mentors, management, agencies and communities have experienced learning. One respondent commented '… It allows a genuine learning culture to develop where teaching practice is informed by workplace reality, and it is a true theory building situation generated by practice and everyone learns from their own experiences and the experiences of others'. One particular project that commenced in 1999 was followed through by the student after graduation in 2000, is still on a spiral of investigation and growth, and has now become a reality in the form of an emerging service funded by the community. The learning has spread from the participant and teachers within the academic unit to community members, politicians, community groups and service agencies.

Observations and reflections of what was being learned

Responses indicated that participants and peers learned about self through the process of deep self-reflection about theory to practice and practice to theory. Many felt it was important to note that participants learned confidence in self.

High on the list for teachers and facilitators was the learning of effective work practices, effective learning and teaching methods and effective theory building.

Facilitators learned how to better meet the learning and support needs of the participants and how to give one another feedback. They learned to accept that effective learning can take place in the workplace and is a better learning experience with support from a workplace supervisor.

Many respondents remarked that they had observed a new level of a cooperative sharing of ideas, and in particular it is extremely helpful to have sharing from past participants. It was apparent that the participating group needed to have commonality, but enough diversity to provide challenges

Field supervisors and assessment panel members learned new ways of looking at things and the value of reflective practice. The panel presentations demonstrated that individuals and teams are more highly motivated when they value themselves and their confidence is high.

Evidence that learning occurred

In some cases the learning was shared each week, while for others there was pre and post communication with students/trainees in the form of in-depth interviews. Learning was evidenced in the high quality of the projects produced and the increase in workplace skills and everyday functioning.

Value of the learning experience

The experience was more highly valued by the participants and their workplaces, on completion than at the beginning. Teachers found it valuable because much of the learning improved their practice. Managers valued the development of a more informed and professional workforce, whose members now see education and training as advantageous and so look forward to future learning in the higher education arena.

Many appreciated that the projects provided an integration of theory and practice and practice to theory and the fact that the process keeps teaching current and relevant.

Advice regarding using action research as an action learning experience

All respondents suggested that VET practitioners should definitely do it and critically reflect. We should push the paradigm. We need to recognise that we may never have enough empirical evidence to indicate that we should use action learning, but we need to take the chance.

Participants in this process should all be introduced to the concept of paradigms and paradigm shifting. Practitioners should follow this lead and give workers, managers and organisations the respect of knowing their job.

Workplaces appreciated the negotiation and liaison employed to establish the style of delivery and assessment.

Conclusions

The evaluation indicates that an action research as acti[illegible]cational model is an effective inclusive model of education management, which promotes a chain reaction where learning takes place at multiple levels.

As someone who has been involved in the process over the past five years, I suggest that to make this model successful, the practitioner needs the intuition to recognise the value of the concept, the courage to put it into practice and the commitment of time to make it work.

Another valuable asset is a 'Champion' in management; a manager that works as part of the team at the coalface, as a facilitator, supervisor and mentor - and yet will champion the ideas and innovations of the team to upper management.

The latest innovation

The championing of our innovations by the Head of Department has given us the funding for a pilot 'Workbased Learning Centre' within our department. From this centre we are currently delivering workplace training at certificate level, action research projects as assessment tasks and a workbased postgraduate diploma in partnership with the University of Western Sydney.

The future for action research as action learning

Action research as action learning in this department will continue. Partnerships are developing with students, industry, organisations and educational institutions. We believe that this approach leads to the development of lifelong learning as an element of a vibrant, innovative learning society. It lays the foundation for a fundamental change in attitudes towards training, teaching and learning on the part of individuals, groups, and organisations.

References

Argyris C and Schon D A (1987) Theory and practice: increasing professional effectiveness. San Francisco: Jossey Bass.

Boud D, Keogh R and Walker D (1985) What is reflective learning. In D Boud et al (eds) Reflection! Turning experience into learning. New York: Kogan Page.

Brennan J and Little B (1996) A review of work-based learning in higher education. Sheffield (DfEE).

Brookfield S (1990) The skilful teacher: on technique, trust and responsiveness. San Francisco: Jossey Bass.

Buckle J (1987) Handbook for the assessment of experiential learning. London: Learning for Experience Trust.

Candy P C (1991) Self-direction for lifelong learning: a comprehensive guide to theory and practice. San Francisco: Jossey Bass.

Carr W and Kemmis S (1986) Becoming critical: education, knowledge and action research. Basingstoke: Falmer Press.

Dick B (1997) Action learning and action research. http://www.scu.edu.au/schools/gcm/ar/arp/actlearn.html.

Driscoll M (1999) Web-based training in the workplace. Adult Learning, vol 10, no 4, pp 21-25.

Duckenfield M and Stirner P (1992) Learning through work. Sheffield: Employment Department.

Duffy T M and Jonassen D J (eds) (1992) Constructivism and the technology of instruction: a conversation. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

Entwhistle N J (1988) Styles of learning and teaching: an integrated outline of educational psychology. David Fulton: London.

Field L and Ford G (1995) Managing organisational learning: from rhetoric to reality. Melbourne: Longman Cheshire.

Freire P (1985) The politics of education: culture, power and liberation. Massachusetts: Bergin and Garvey Publishers Inc.

Garrick J and Kirkpatrick D (1998) Workbased learning degrees: a new business venture, or a new critical business. Higher Education Research and Development, vol 17, no 2, pp 171-182.

Kelly C (1997) David Kolb, the theory of experiential learning and ESL. The Internet TESL Journal, vol 3, no 9. http://www.aitech.ac.jp/~iteslj/Kelly-Experiential.

Kemp I and Seagraves L (1994a). Structured learning in the workplace – the industry perspective. Glasgow: Glasgow Caledonian University.

Kolb D (1984) Experiential learning. Experience as the source of learning and development. Englewood Cliffs, New Jersey: Prentice-Hall.

McKernan J (1991) Curriculum action research. London: Kogan Page.

Mezirow J (1990) Fostering critical reflection in adulthood: a guide to transformative and emancipatory learning. San Francisco: Jossey Bass.

Osborne M J, Yule W, Dockrell R and Neal P (1993) Accreditation of in-house courses and accreditation of prior experiential learning - some case studies. Stirling: Stirling University and Glasgow Caledonian University.

Ott J S (1989) The organizational culture perspective. Illinois: Dorsey.

Parsons D, Cocks N and Rowe V (1998) The role of the employee development schemes in increasing learning at work. DfEE Research Report, no 73. Sudbury: DfEE.

Reeve F, Gallagher J, Sharp N, Osborne M L, Whittaker R, Dockrell R and Neal P (1995) Developing employment-based access to learning (DEAL) - final report. Glasgow: Glasgow Caledonian University/University of Stirling/Napier University.

Schon D (1983) The reflective practitioner: how professionals think in action. New York: Basic Books.

Seagraves L, Kemp I and Osborne M J (1996a) Are academic outcomes of higher education provision relevant and deliverable in the workplace setting? Higher Education, vol 32, pp 157-176.

Smith A (1999) The elements of a training culture. In Robinson C and Arthy K (eds) Lifelong learning. Developing a training culture. Adelaide: National Centre for Vocational Education Research, pp 73-80.

Taylor S and Spencer L (1994) Individual commitment to learning - individuals' attitudes. Sheffield: Employment Department.

Zuber-Skerritt O (1982) Action research in higher education. London: Kogan.

Zuber-Skerritt O (1991) Professional development in higher education: a theoretical framework for action research. First World Congress On Action Learning, Action Research and Process Management. Brisbane: Aebis Publishing.

Contact details

Lola Krogh
Email: lola.krogh@cit.act.edu.au

TAFE teachers: facing the challenge

Michaela Kronemann

Federal Research Officer. Australian Education Union

Funding cuts and constant change/restructure are two of the key changes that have had the most impact on the work of technical and further education (TAFE) teachers. The vast majority have seen their workload increase and their ability to fulfil their family and household responsibilities affected. Nearly one thousand TAFE teachers have had their say in a national survey conducted by the Australian Education Union (AEU). This is an initial report of some of the outcomes.

The survey

The AEU survey of TAFE teachers undertaken in the second half of 2000 follows on from the *Building the Foundations of our Future* project undertaken in relation to teachers in schools in 1999. The overall project arose as an initiative of the AEU's national women's program and does have a particular but not exclusive focus on women. Essentially, the aim of the project has been to look at the changing nature of teachers' work and workload, the impact on teachers' lives, and the priorities they see for union action.

While the TAFE survey has looked at similar issues to those addressed in the previous research on schools, it was of course tailored to the particular circumstances and challenges facing TAFE, and TAFE teachers. The budget cuts, and particularly growth through efficiencies, have created enormous pressure within TAFE. In addition TAFE, as we know, has been at the cutting edge of competitive tendering, user choice, new delivery modes and marketisation.

This context has shaped the TAFE questionnaire and project. In particular, the AEU's National TAFE Women's Committee urged that attention be given to the views of casual/sessional/hourly paid teachers, and that both members and nonmembers in that category be asked to respond. The research proposal was endorsed by the National TAFE Council Executive and Federal Executive in June 2000, and the questionnaire was administered in August.

Over 2000 questionnaires were sent out to members via a random sample: about 1700 to women and 300 to men. In addition, 600 questionnaires were distributed to casual/sessional teachers - 400 women and 200 men, both members and nonmembers - to ensure that the particular disadvantages faced by casual teachers informed the research, and to try to explore their relationship to their work, their needs, and their response to the union.

The questionnaire is 12 pages long, and very detailed. It asked about teachers' employment, about their family/personal responsibilities, about their paid and real hours of work and the factors that have affected their work and their workload. It asked about their professional development and study, qualifications, career, their interest in promotion and about their work and family. And of course we asked them about their involvement in the union, their priorities and suggestions for union action. For the casual nonmembers, we asked why they chose not to be members, and what the union could do that would encourage them to join.

In total, just over 940 teachers responded in time to be included in the analysis. This is an overall response rate of 35.5%, which is very good. For members in the random sample it was 37%, while for the subgroup of 600 casual/sessional teachers, it was 30%.

Who are TAFE teachers?

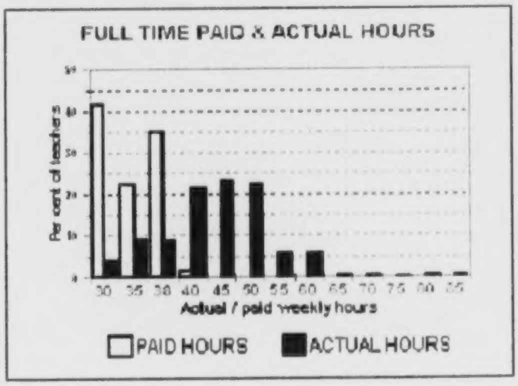
The average age of TAFE teachers is 47.4. Eight percent (80%) have a spouse/partner and more than 80% have children, with about half having children under 18. A far greater proportion of women than men say they are the prime caregiver for dependent children, and a far higher proportion of men say their partner works part time or does not have a paid job.

In addition, one in five teachers have caring responsibilities for aged family members. Over a quarter of these partners are other teachers - a problem when you consider the impact that current workloads have on teachers' family lives.

Our survey also confirms that women are more likely to be on fixed term contracts/temporary and or casual/sessional/hourly rates.

Workload

There are some complexities in looking at hours of work, because of interstate differences describing total paid hours or attendance time requirements. But on average, full-time teachers are working 43.8 hours a week. This is an average of 7 hours unpaid overtime a week, although the spread is obviously pretty wide, with 57% working more than 40 hours a week and 34% working more than 45 hours a week. Without getting into the intricacies of the calculations, this unpaid overtime done by full-time teachers would be roughly equivalent to 2160 additional effective full-time teachers.



Teachers who work part time or irregular hours are doing an average of 7.7 hours unpaid overtime each week. It is difficult to give more than a rough estimate, but when you take into account the range of hours that people might be working, the unpaid work done by teachers who are working less than full time could well be equivalent to something like another 4600 effective full-time teachers.

Activities adding extra workload

Teachers were asked to rank the activities that led them to work more than their official hours. Preparation, administration, correction/assessment, special responsibilities like coordination and meetings are the most dominant factors in increasing workload. There were some interesting differences in the responses of men and women. For example, more women ranked student welfare in their top five factors (23.7% compared to 13.6%), while more men ranked industry and community liaison in their top five (21.3% compared to 11.6%). But the overall similarities are far greater than the differences.

Top five factors in workload

Most frequently cited factors	%
Preparation	63.0
Administration (including accountability requirements)	53.2
Correction/assessment	51.5
Special responsibilities (eg coordination activities)	35.7
Meetings	30.7
Classroom/other delivery	24.6
Student welfare	21.4
Curriculum customisation	17.6
Curriculum development	16.2
Professional/staff development	15.8
Maintenance of current/professional competency	14.2
Industry and/or community liaison	13.8
Flexible delivery (not including on-line)	12.0

Changes that have had the most impact on work

Over half of teachers listed the funding cuts as one of the five changes that has had the most impact on their work, and nearly half listed the constant change and restructure. Other factors most often listed include reporting and accountability requirements, the cuts to teaching staff, the changes in delivery modes and curriculum, and the reduced job security/greater casualisation. There were some relatively minor differences between women and men, but the overall picture is very clear across all teachers.

Five changes impacting most on work

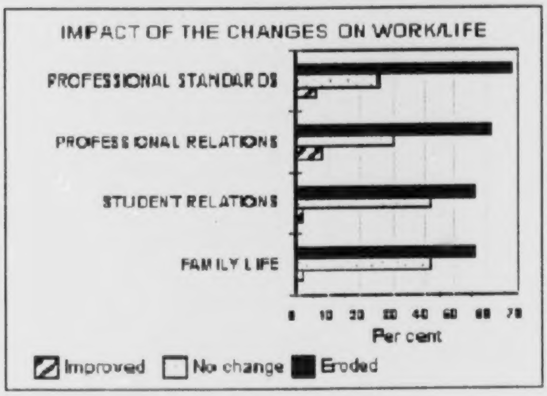
Most frequently cited changes	%
TAFE funding cuts	53.1
Constant change/restructure	45.1
Reporting and accountability requirements	39.2
Cuts to teaching staff	35.8
Changes in delivery modes	33.0
Curriculum changes	32.7
Reduced job security/greater casualisation	31.6
Training packages	31.5
Cuts to support staff	26.9

Technological change	21.2
Changing student clientele	19.3
Workplace training and assessment	18.0

Impact of the changes on work and life

The changes that teachers have experienced have had a significant impact on how they see their work and their professional interactions. In total, 86% say their workload has increased or significantly increased, and about the same number state that stress at work has increased or significantly increased.

More than two thirds (68%) say their ability to maintain professional standards/ provide quality education has been eroded. While nearly 44% say that their ability to maintain and update their technical skills has increased, about 30% say it has decreased. In addition, 61% say that professional interaction between staff has been eroded, and half say that their relations/interactions with students have been eroded. Teachers themselves, in other words, are expressing concerns about the quality of teaching and learning that can be provided in the current environment.



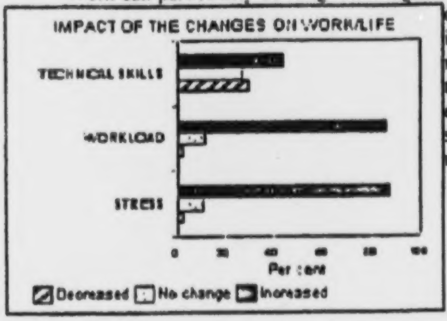
In total, 56% of TAFE teachers also said that their family life had been eroded as a result of the changes in their work. An even higher proportion (69%) said that their work responsibilities impact on their capacity to fulfil their family/household responsibilities.

> I have to try and juggle long hours at work. Work for work at home - teaching preparation - I don't get time to do this at work and this is very stressful. My family gets sick of the workload, they do not understand why it has to be this way. (NSW female, ongoing)

> Arrive home exhausted, quick meals, often back into work on computer in evenings. I can never get on top of workload. Started leaving at 7.00am to get into work earlier (didn't see family pre-work). Later I started going on in weekends - only way to get on top of things - especially with training course I ran in business sector. I had no support staff to help with materials preparation, resources etc. Constantly stressed. Saw less (much

> less) of wider family. Excessive workload resulted in humourless, exhausted me - took stress home. Everyone suffered.
> (Victorian female, ongoing)

> Work can particularly be long and irregular hours. Difficult to plan care of child. Stress of job insecurity effects relationships. Constant need to increase and learn skills erodes time available to spend with my wife. (WA male, temporary/fixed term)



Part time and casual/sessional/hourly paid teachers

85% of the part time and casual/hourly paid teachers who responded get their main income from TAFE, and 45% of them would like to increase their hours or work full time. In their struggle to make ends meet in precarious employment, 53% of all part time and casual teachers are doing other jobs as well - 23% of these work in other TAFEs, 37% in industry, 11% in higher education, and 5% in schools and nearly 40% in other work.

As one male casual teacher from NSW said:

> No predictability of work schedules - amount, times, days, income. Must take other work to provide other income which produces clashes in time and often extended work hours, weekends. Impossible to plan/co-ordinate workplace arrangements. No provision of facilities (storage/working space/computer) at TAFE so home space is used for work office purposes. Difficult to juggle work when needed - 16 weeks of no TAFE income: hard to supplement unless flexible work arrangements can be sought elsewhere - no social security support available during these periods so my TAFE income is limited to 8 months of the year. Try it, not easy.

Reasons for joining the union

80% of teachers listed protection of employment/industrial conditions in their top five reasons. The next two reasons most frequently mentioned were promoting and upholding the profession of teachers (65%), and solidarity/ideological/personal commitment (54%). Collective bargaining power followed at 52.7%, and promoting/protecting public education followed closely behind at 51.5%. Nearly half (48.1%) also listed legal protection. It is important to recognise that union members see the union's role not only as protecting their conditions, but as being the professional voice of teachers and an advocate for public education.

All teachers, irrespective of whether they were permanent/ongoing, fixed term/temporary, or casual/sessional, listed the protection of conditions most frequently, followed by promoting and upholding the profession of teachers. However, casual/sessional teachers listed promoting/protecting public education and legal protection more highly, and collective bargaining lower, than did other teachers. This perhaps reflects the current despair felt by many casual/sessional teachers about their employment mode and conditions and their recognition that promoting and protecting public education is vital to change. Given the precariousness of their employment, they may also feel a greater need of legal protection.

Priorities for the union

Teachers were asked to rank union priorities in relation to TAFE, and their answers indicate the varied roles that the union plays on behalf of members, collectively and individually. Restoring a viable quality TAFE system was in the top five priorities of three out of four teachers. Somewhat over half listed security of employment and better conditions. A fraction under half listed providing a professional voice. Protection of individuals was the priority cited most frequently after those four.

Top five priorities for the union

Most frequently cited priorities	%
Restoring viable quality TAFE system	73.4
Security of employment	53.9
Better conditions	52.7
Providing a professional voice	49.1
Protection for individuals	47.8
Higher salary	34.4
Advocacy for public education	32.1
Reduced workload	26.4
Professional/staff development	24.7
Education policy in general	21.9
Promotion opportunities	7.2
Other	3.0

If teachers identified better conditions as a priority for the union, they were asked to nominate the three particular improvements that they would most like to see. Half of all responses included general and specific claims for maintenance of - or, more often - improvements in the conditions of work.

There was a recognition that teachers' work has changed, and that this needs to be addressed in the way in which teachers' work arrangements are structured and controlled.

> Contacts = teaching hours etc. is an antiquated system. Does not reflect issues such as travel, up front assessments, workplace training, on line delivery etc. (Victorian female, ongoing)

The need to address the conditions of casual and part-time teachers features in responses from both ongoing teachers and, more particularly, part-time and casual/sessional teachers. Many teachers spoke of the need to give temporary teachers access to permanency and thus equivalent conditions to ongoing teachers. Job security was in itself a major issue, with one quarter of all respondents mentioning the need for greater job security, including nearly half of all the temporary/casual teachers. The most frequently mentioned issue in relation to part time or casual conditions would undoubtedly have been the need to provide pro rata leave and related benefits. Being compensated for the actual hours worked, including preparation time, assessment time, meetings and other requirements was also an issue in relation to part time and casual teachers' conditions.

Measures to reduce teacher workload were highlighted by nearly 64% of ongoing and 25% of temporary/casual teachers. Apart from general comments about the need to reduce workloads, a key sub-theme was the need to reduce teaching/delivery hours, usually in recognition of all the other duties teachers are trying to deal with in their working week. This was expressed in a number of ways: as a demand for more teachers, as reduced delivery hours, and as increased time for preparation and other specific responsibilities.

The other major stressor requiring change in relation to conditions is the pressure of administrative duties. Teachers either wanted their administrative duties reduced, by doing away with unnecessary paperwork and/or by having access to increased clerical support, or else they wanted other duties to be decreased in order to cope with the administration. There were also specific calls for more coordination time.

The other major priority identified by teachers is the need to increase funding and resources for TAFE. More than half of the ongoing teachers (53%) identified this as a priority, as did 37.1% of the temporary/casual teachers.

> Restore TAFE funding - we've got to stage where we can't meet our promises (tender) with the same quality or choices for students. (SA female, temporary/fixed term)
>
> Restore/increase TAFE funding so that we can do the job we are supposed to - no cutting classes or courses, or increasing class sizes. (NSW female, casual)

Apart from general issues of resources, teachers identified the need for improved teaching resources and equipment, with a particular emphasis on reasonable access to updated computers and other technology. Many teachers also focused on the inadequate facilities within which they worked, in both delivery and other areas. Part-time and casual teachers were in a number of instances more concerned to establish an entitlement of access to the most basic of resources at all.

This report highlights some of the key outcomes of the research, but there is a wealth of further information about what TAFE teachers are doing and thinking about their work, their union and their lives, much of which will be included in the final report. The TAFE teachers who added to their workload by filling in this long questionnaire deserve congratulations and thanks.

As one teacher so wryly commented:

> I spend far too much time here (as I am now, doing this at 8.30pm). (Tasmanian male, ongoing).

Contact details

Michaela Kronemann
Federal Research Officer
Australia Education Union
Email: mkronemann@aeufederal.org.au

Abstract

Helping school-based VET teachers make meaning of their work

Megan Lugg
PhD Student
University of Sydney

This paper identifies several issues emerging from the introduction of dual-accredited vocational courses in the NSW Higher School Certificate in terms of equity, curriculum and the forms of knowledge which have traditionally been privileged within Australian secondary schools. In particular, this paper aims to explore how school-based vocational teachers make meaning from their work in relation to the interpretation and implementation of these curricula within a critical framework which acknowledges the broader social and political environments acting on the vocational agenda. Reflecting on some initial learnings from a related research project and her PhD studies, the presenter discusses some methodological and practical implications of conducting practitioner and participant research within a secondary school in NSW—research in which language, communication and teacher 'talk' are seen as important to how VET is viewed and 'created' within the school culture, and how school-based vocational teachers [and their students] construct notions of 'competence', competency standards and the curricula in which they are embedded. This paper also considers to what extent these understandings might challenge the values and assumptions which underpin the traditional academic/vocational divide within Australian secondary schools.

The reform and development of the VE System in China

Yufeng Liu

Central Institute for Vocational and Technical Education, PR China

The VE system in China has been re-established with the implementation of the reform and open policy and with the economy development in the economy transition process from planning to market. After 20 years of reform, the VE system has been basically established in China. This has a rational structure and different stages from junior to senior level, which match the industrial sectors and link up with regular secondary education. This paper gives a brief introduction to the following aspects of the Chinese VE system:

- The nature of VE reform in China
- The details of the VE system in China
- The problems faced by the VE system
- The role of VE research in the development of VE

The nature of VE reform in China

The nature of the VE system reform in China is to make the VE system constantly meet the demand of the labour market. This can be seen in the stages of reform and development of the VE system. Since the 1980s, the reform and development can be divided into three stages.

Reformation of the senior secondary VE (from 1980 -)

At the beginning of the 1980s, the basis of the VE was very weak; a great number of secondary specialised schools (SSSs) and skilled worker schools (SWSs) had stopped operating and the structure of the secondary VE system was unitary and divorced from the economy. Every year, only a minority of general senior secondary school graduates could receive higher education and millions of graduates needed to be employed, but they had no specialised knowledge and skills. At the same time, industrial sectors urgently needed skilled workers. This situation negatively affected improvements to productivity.

Recognising this situation, the Chinese government has been promulgating a series of documents to adjust the structure of the VE system since 1980. These documents mainly focus on the structural adjustment of the senior secondary VE system.

The *objective* of this adjustment was to significantly increase the percentage of VE in the level of secondary education. The 'Report on the Structural Reform of Secondary Education' (1980) pointed out that the structure of secondary education should be reformed and vocational education be developed so as to enable the senior secondary schools to meet the needs of socialistic modernisation construction. The reform of secondary education structure should focus on the reform of senior secondary education. The 'Decision on the Structural Reform of Education' (1985) clearly laid down that the amount of enrolling new students in senior secondary VE schools should be equal to that in senior secondary general education schools within five years.

The *way* to reach this objective was to change some senior general education schools into vocational (or technical) schools. Since then, lots of senior general schools of low quality were changed into vocational high schools.

After ten years of development, the VE gained great achievements. However, totally speaking, it was still very weak; it could not meet the development of economic construction and the development of society. Therefore, the 'Decision on Energetically Developing Vocational and Technical Education' (1991) pointed out that the strategic position and function of the VE should be highly recognised. It was decided to carry out the policy to energetically develop VET. This document put forward specific policies to develop VE and concrete requirements for VE reform.

The 'Outline on Reform and Development of Education in China' was drawn up in 1993. This required governments at various levels to attach great importance to vocational education, make overall plans and energetically develop vocational education. In 1994, 'The suggestion of implementing the 'Outline on Reform and Development of Education in China'' stated that the new developing objective of VE was to increase the percentage of students in VE schools to 60% of the total in the same level schools by 2000.

Before 1994, considerable emphasis had been placed on the development of senior secondary VE.

Actively developing higher VE (from 1994 -)

With the development of economy and technology, industries demanded lots of practical personnel of high level that could change design into forefront productions. Only higher VE could cultivate this kind of personnel; not university, nor senior secondary VE. From 1994, the focal point of developing VE was put not only on secondary VE, but also on higher VE.

The National Education Conference was held in June 1994, stressing that higher VE should be developed actively. 'From now on, the scale of higher Education should be broadened, especially the scale 3 year higher education and higher VE should be broadened'.

To carry out the spirit of the National Conference, in October 1994, the State Education Commission dispatched a circular to run higher VE as an experiment within ten secondary specialised schools. This circular required experimental schools to understand their training objective on the basis of analysing the economic construction and job features, and to develop a teaching plan and syllabus on the basis of job analysis, attaching importance to competency and practical teaching. In October 1995, the State Education Commission sent out another circular to improve the reform of vocational universities to make them have more characteristics of higher VE. In December 1995, the State Educational Commission sent out a circular to establish demonstration in vocational universities.

In 1996, 'The Ninth Five-Year Plan for Educational Development and the Long Range Development Program Toward the Year 2010' pointed out that one of the goals of educational development was to moderately expand the scale of higher education, and optimise its structure and further improve the quality and efficiency of educational provision. With regard to the relative weight of degree-level and sub degree-level programs, priority was to be given to the development of sub degree-level programs, especially those catering to the manpower needs of the rural regions, the small and medium-sized enterprises (SMEs), rural enterprises, and the service sector in urban and rural areas, provided either by regular or adult HEIs or by tertiary vocational education institutions.

Establishing the flyover of the VE system (from 1998 -)

Since 1998, great efforts have been made to establish the flyover of the VE system to facilitate communication between vocational education and higher education.

The 'Action Scheme for Invigorating Education Towards the 21st Century' (1998) pointed out that actively developing higher vocational education constitutes a pressing demand of national economic development, for it can improve people's scientific and cultural quality and postpone their need for employment. We should gradually develop ways to facilitate communication between vocational education and regular higher education, so that graduates from secondary vocational schools may continue their studies in higher education institutions after passing the qualifying examination.

The 'Decision on Deepening Educational Reform and Promoting Quality Education' (1999) further emphasised that an educational system adapted to the socialistic market economy and the internal law of education should be set up, and that within this VE system, different types of education should be connected and secondary VE graduates should have the opportunities to advance their studies. Vocational technical colleges may adopt a variety of methods to enrol graduates from regular middle schools and secondary vocational schools. Vocational technical college (or vocational college) graduates may continue their studies in regular HEIs after going through certain screening procedures.

After putting the spirit of related VE reform documents into effect for 20 years, the VE system, in which different levels and types are connected, has basically been established. Totally speaking, this VE system is adapted to the market economy and internal law of education.

The system of Vocational and Technical Education in China

The system of vocational education consists of education in vocational schools and vocational training. Vocational education in China is provided at three levels: junior secondary, senior secondary and higher.

Conducted mainly in junior vocational schools - and aimed at training workers, peasants and employees in other sectors with basic professional knowledge and certain professional skills - junior vocational education refers to the vocational and technical education after primary school education, and is a part of the nine-year compulsory education. The students in secondary vocational schools should be primary school graduates or youth with equivalent cultural knowledge. This schooling lasts 3-4 years. To meet the needs of labour forces for the development of rural economy, junior vocational schools are mainly located in rural areas where the economy is less developed. In 1999, there were 1,319 such schools, with 900,800 students enrolled.

The secondary level mainly refers to the vocational education at the stage of senior high school. This is composed of specialised secondary schools, skill worker schools and vocational high schools. Secondary vocational education plays a guiding role in training manpower with practical skills at primary and secondary levels of various types. *Specialised* secondary schools enrol junior high school graduates with a schooling of usually four years and sometimes three years, with the schooling lasting two years. The basic tasks of these schools are to train secondary-level specialised and technical talents for the forefront of production. All the students should master the basic knowledge, theory and skills of their speciality, in addition to the cultural knowledge required for higher school students.

Table 1: Data on junior secondary vocational school development in the 90s

(10,000 people)

Year	Number of Schools	Enrolment	Number of students at school	Percentage of number of students at school in all students in the same level
1990	1509	19.36	47.88	1.22
1991	1556	23.82	52.33	
1992	1593	26.68	56.38	
1993	1582	26.65	56.24	
1994	1538	28.51	63.05	
1995	1535	28.84	69.69	1.47
1996	1534	30.68	77.52	1.54
1997	1469	30.88	80.89	
1998	1472	34.89	86.70	1.59
1999	1319	33.76	90.08	1.55

Table 2: Data on senior secondary vocational school development in the 90s

(10,000 people)

Year	Number of specialised schools	Number of vocational high schools	Number of skilled worker schools	Number of adult specialised schools
1995	4049	8612	4507	
1996	4099	8515	4467	
1997	4143	8578	4395	
1998	4109	8602	4395	5065
1999	3962	8317	4098	5165

Aiming at training secondary-level skill workers, skill worker schools enrol junior high school graduates. This schooling lasts three years. Quite capable of practicing and operating, their graduates will directly be engaged in production activities. Vocational high school enrols junior high school graduates, and its schooling lasts three years. Its main task is to train secondary-level practice-oriented talents with comprehensive professional abilities and all-round qualities, directly engaged in the forefront of production, service, technology and management.

With the schooling lasting 2-3 years, higher vocational education mainly enrols graduates from regular high schools and secondary vocational schools. In recent years, the proportion of graduates from secondary vocational education has been increased, establishing the links between secondary and higher vocational education gradually. Aiming at training secondary and high-level specialised technical and management talents needed in economic construction, higher vocational education emphasises the training of practice-oriented and craft-oriented talents.

The Education System of P. R China

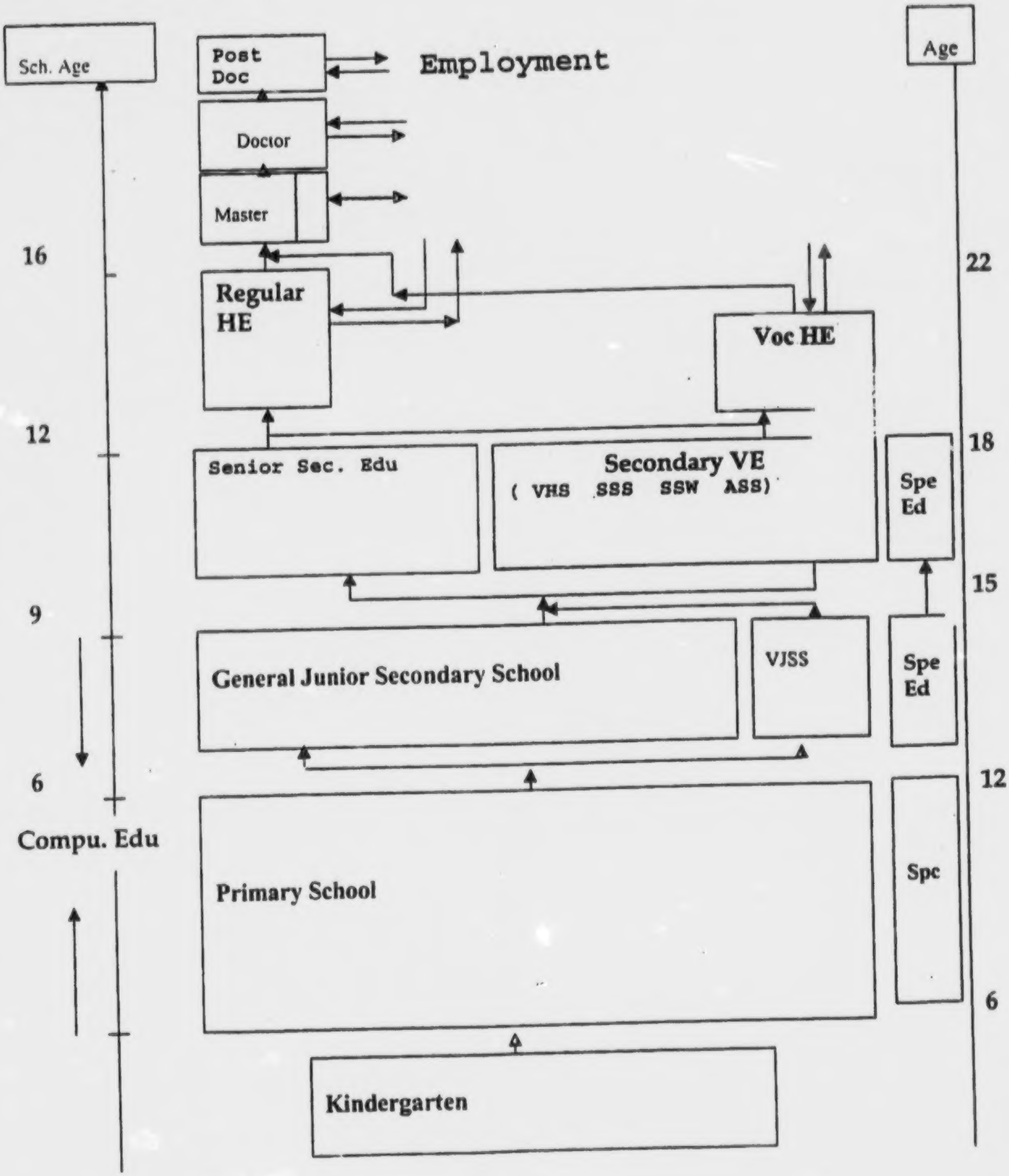

Sch. Age
Post Doc
Employment
Doctor
Master
Age
16
Regular HE
22
Voc HE
12
Senior Sec. Edu
Secondary VE
(VHS SSS SSW ASS)
Spe Ed
18
15
9
General Junior Secondary School
VJSS
Spe Ed
6
12
Compu. Edu
Primary School
Spc
6
Kindergarten

Table 3: Data on development of vocational universities in the 90s

Year	Number of schools	enrolment	Number of students at school	Number of graduates
1990	114	24059	72449	26452
1991	114	22930	63459	24943
1992	85	27053	66219	20315
1993	83	35274	79909	19647
1994	87	35518	93939	21456
1995	86	37050	98300	28863
1996	82	38596	98831	31766
1997	80	44665	112092	29818
1998	101	62751	148561	35480
1999	161	123400	234200	40100

Vocational training of various forms has been playing a more and more important role in vocational education. At present, vocational training is mainly conducted and managed by the departments of education and labour, but enterprises are encouraged to provide vocational training for their own employees.

The problems faced by the VE system in China

Due to historical reasons, the VE system in China is school-based. This has resulted in the system facing the following problems:

Enterprises don't want to cooperate with the VE system

Under the planned economy, everything related to enterprise belonged to the state; gaining profit or losing money had nothing to do with enterprise itself. But now after the enterprise reform, enterprise has to assume sole responsibility for its profits or losses. Due to historical reasons, state-owned enterprises and collective enterprises have a heavy economic burden; they not only have to pay pensions and medical fees for lots of retired staff and workers, but also have to pay wages for lots of existing workers and staff members. Some of these enterprises are now in a depressed state. At the same time, some enterprise directors cannot recognise the value of cooperating with the VE system - therefore, the enterprises don't want to cooperate.

Due to the unbalance of the relationship of supply and demand in the labour market, and the fact that the related policies have not formed a complete system, these enterprises can easily get the manpower they need in the labour market. This means that they don't need to provide input into the VE system.

Enterprises in labour market belong to the demand side. They know clearly what kind of manpower they need and how much they need. Without the cooperation of enterprises, the VE system cannot meet the demands of the labour market.

The quality of VE could not meet the demands of the labour market

Due to the following reasons, the quality of VE could not meet the demands of the labour market:

- the reform in the VE system under the transition process is without precedent in history. Without related experiences, it's hard to forecast the related problems during the transition process;
- the theory of socialist market economy has not matured - it's difficult to forecast the problems which might appear;
- the curriculum in VE institutes is academic and subject-based;
- the relationship between VE and enterprise is loose - the demand of enterprises could not rapidly reach the VE system; and
- most VE teachers are underqualified.

Flyover of the VE system is not very fluent

Although government has the policy to develop higher VE and to establish flyover of the VE system, due to the following practical problems, flyover of the VE system is not very fluent.

- higher general and VE institutes are unwilling to enrol students from secondary VE institutes for the reason that higher education thinks that the quality of students in secondary VE institutes is lower than in general secondary education schools;
- the main content of examination for entering higher VE is general cultural knowledge – this is unfair for the secondary VE students;
- the percentage of secondary VE graduates which could receive higher VE is still very small; and
- the objectives and curricula between secondary VE and higher VE lack continuity.

The role of VE research in the development of VE

In the process of reforming VE, research has been significant in helping VE reform process in China to a great extent, for it can introduce and research modern VE theory, and improve the efficiency of VE reform.

For instance:

- Competency is emphasised in the process of reform of VE instruction in China. It was introduced and researched first by VE research institutions, and finally accepted by administrative sectors of VE. Now competency has become one of the goals of VE reform.
- New VE teacher qualifications, and abstract research outcomes of VE attach importance to VE teacher professional competency.

Research is translated into reality through the following ways:

- **First, through government policies:** once the value of research achievement is recognised by government, government will take the achievements as a reference when it decides related policies, then research can be put into practice.

- **Second, through people who engage in VE:** people who engage in VE could know and understand VE research achievements, therefore, research achievements can be put into practice.

Though great VE research achievements have been gained in China, there are still many hot topics requiring research in China, eg the links between secondary and higher VE, and the transition from VE to market in the transition process from planning economy to market economy.

Contact details

Yufeng Liu
Ph: 86 10 66097116
Fax: 86 10 66033669
Email: civte@netchina.com.cn

Increasing opportunities for apprenticeships and traineeships in Melbourne's western region

Dr John Martino, Ms Sue Holden and Ms Tess Demediuk

Victoria University

Apprenticeships and traineeships or the rebadged New Apprenticeships have taken the initiative of encouraging, particularly young people, to look at career paths in a variety of traditional and non-traditional industries. In some regions of Australia, such as the west of Melbourne, this initiative appears to have failed.

The research project identified factors that inhibited the expansion of apprenticeships and traineeships in Melbourne's west. These factors include career counselling, the importance of VET in Schools, community and media perceptions, quality and source of information and organisational issues. The methodology involved conducting focus groups with six schools in three Local Government Areas, surveying 400 local businesses and interviewing key stakeholders such as Group Training Companies, Industry Training Boards, employers and school careers teachers.

The outcomes have provided an invaluable insight into the perceptions held by young people, businesses and educational authorities about the utility of New Apprenticeships. This research has taken a critical look at New Apprenticeships with the view to providing a way forward for all parties to improve the quality of apprenticeship and traineeship opportunities and outcomes.

This research project was the first of its kind focused on the western region of Melbourne, which set out to identify the barriers to the uptake of apprenticeships and traineeships.

In doing so, it took a snapshot of current New Apprenticeship[1] activity in the western region and analysed the realities of the attitudes and practices of key players. It gives an understanding of why there are barriers to the uptake of New Apprenticeships and highlights opportunities to improve New Apprenticeship outcomes in the western region.

The report identified fifteen recommendations grouped under the headings of schools, employers and government. The recommendations covered a range of areas, from lifelong learning for young people, developing a pathways planning model for career development, to the expansion of support provided by New Apprenticeship Centres (NACs). The recommendations also called upon the government to implement the findings of the Kirby Review (2000) to assist in the creation of greater opportunities for young people. Despite having a regional focus, the research team believed the outcomes of the research project had a broader context in similar regions around the nation.

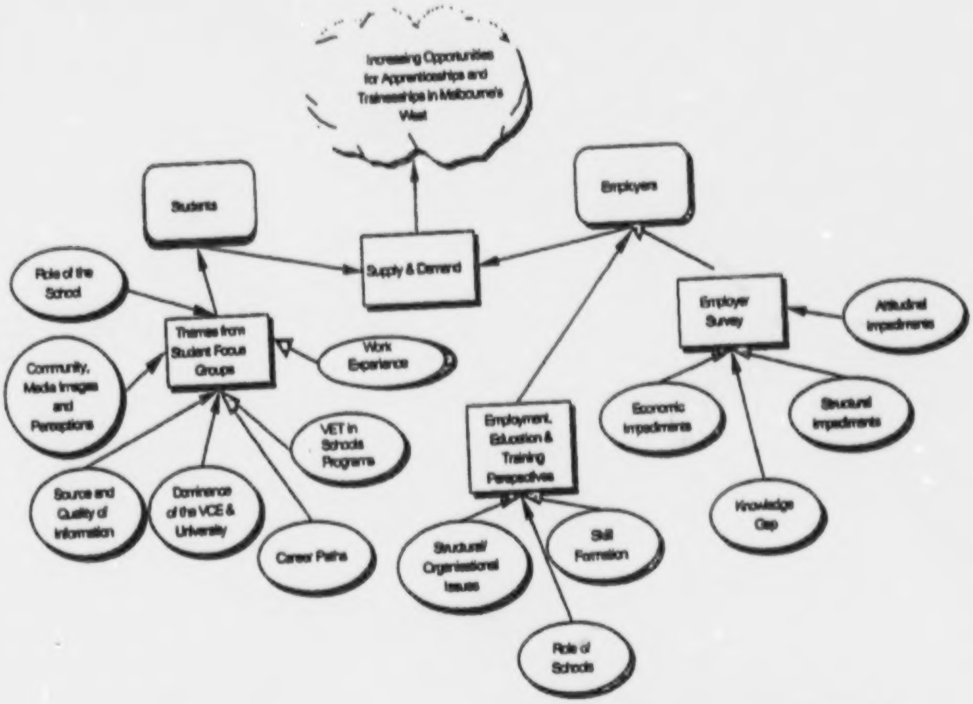
This paper gives a brief overview of the research project, conducted by a team of researchers from Victoria University. Although the project had as its central objective the identification of barriers to the take-up of apprenticeships/traineeships by young

BEST COPY AVAILABLE

people in the western region of Melbourne, it identified further issues outside the parameters of the current project and provided a framework for further research in this area. The research project utilised a combination of qualitative (focus groups and interviews) methods and quantitative (surveys) methods to identify the barriers inhibiting the widespread involvement of young people in the New Apprenticeships program. In order to identify these barriers, the research team interviewed or surveyed students, teachers, employers and representatives of organisations responsible for training delivery or coordination of employment of apprentices and trainees or representatives advising government agencies re specific industry training needs throughout the western region. In doing so, a number of key themes and patterns began to emerge that assisted the research team to understand the complex interrelationships underpinning the development of skill formation in youth, and to identify some of the factors undermining this process.

Figure 1 illustrates the complex set of issues and themes raised by each of the groups involved in the project.

Figure 1: Key themes from the research


Increasing Opportunities for Apprenticeships and Traineeships in Melbourne's West
Students
Employers
Supply & Demand
Role of the School
Themes from Student Focus Groups
Work Experience
Community, Media Images and Perceptions
VET in Schools Programs
Source and Quality of Information
Dominance of the VCE & University
Career Paths
Employer Survey
Attitudinal Impediments
Economic Impediments
Structural Impediments
Knowledge Gap
Employment, Education & Training Perspectives
Structural/ Organisational Issues
Skill Formation
Role of Schools

Following is a brief description of the western region of Melbourne and a summary of the analysis of the research outcomes clustered under three groupings: students; employers and employment; and education and training representatives.

BEST COPY AVAILABLE

The research highlighted a series of what can be called 'supply and demand barriers', which the research team argued were sufficient to have a significant effect upon the overall acceptance of, and participation in, the apprenticeship/traineeship system by young people in the west of Melbourne.

The western region of Melbourne

Melbourne's western region, with a population of over half a million people, is one of Australia's fastest growing economic regions. In 1996, the region provided 140,807 jobs. However, 75% of the 207,722 residents with jobs were employed outside of the region.

Manufacturing is the staple industry in the western region of Melbourne[2]. There are only 1,825 manufacturing businesses in the region, placing it behind retail (4,737), property and business services (3,887) and construction (2,459) in the total number of businesses for an industry sector. It is, however, the largest employer in the region.

Combined, the key industry sectors in the west have a direct bearing on the potential growth of employment in the region, if transport, warehousing and logistics businesses are included. If manufacturing is the 'staple', transport and logistics are the 'meaty' area of new growth. The number of transport-specific companies located in the region is 1,301 and growing[3]. With the completion of the Western Ring Road and the impending completion of City Link[4], there is a noticeable increase in the number of transport and transport-related businesses moving into the region (eg tyre and equipment suppliers, cold storage, refrigeration, packaging and processing, freight management, heavy vehicle mechanics and calibration mechanics).

However, the take-up of apprenticeships and traineeships (in traditional and emerging industries) both in the manufacturing, transport and logistics sectors of the region is significantly low. A regional strategy developed by the National Institute of Economic and Industry Research (NIEIR) and Ratio Consultants forecasts that in the next 15 years, the rate of population growth in the west of Melbourne will exceed the rate of job growth by a factor of 5 to 1 (Ratio Consultants 1995).

This forecast highlights that a significant effort must be made to provide the regional community with the best possible 'platform' to utilise training and learning opportunities, including VET in Schools programs and apprenticeships and traineeships.

Students

The research team selected three groups of students from six Victorian secondary schools to be interviewed in separate focus groups (180 students). The schools were located within three local government areas representing small, medium and large take-up by young people of apprenticeships. The research group selected two schools per municipality: one government and one non-government. In each school, the careers teacher was asked to assist in the selection of students using the following criteria:

- year 12 students – students who had chosen traditional academic subjects
- year 12 students (VET stream) – an equal number of students who had chosen VET subjects
- year 10 students – equal numbers of males and females. The team was interested in the group's understanding of VET and the labour market before they had made subject selections.

The groups worked through a number of questions designed to highlight their understanding of apprenticeships and traineeships, the reasons behind specific subject and course decisions and future ambitions.

Students in both government and non-government[3] schools identified the pivotal role of the school in the process of choosing particular subjects and charting a post-school destination. In particular, students in both government and non-government schools highlighted the importance - and in many ways - the dominance of academic studies within the Victorian Certificate of Education (VCE). University (higher education) is perceived as the desirable outcome of the senior years of secondary education) is perceived as the desirable outcome of the senior years of secondary schooling. This rather narrow and traditional 'academic' view of the purpose of secondary schooling and anticipated post-school pathways represents what the research team described as a specific type of 'school culture'.

For the purpose of this project, the research team identified 'school culture' as the implicit and explicit assumptions about what is worthwhile aspiring to and what should be the end goal of an individual's school education. An example of how school culture can influence career choice includes the extent to which a school seeks to actively promote as many post-school destinations as possible, or whether a limited range of options is promoted.

Where school culture is focused on narrow and academic objectives, there is a 'folding in' of the options available to young people. This 'folding in' of the options canvassed by students is also being reinforced by familial pressure to do well in VCE and gain a high ENTER (Equivalent National Tertiary Entrance Rank) score and a higher education place, rather than to consider apprenticeships and traineeships as a viable alternative. As a consequence, apprenticeships and traineeships were not seen as a first option in the post-school period. A view emerged in our discussions with students about attendance at university as the most desirable end product of a secondary education, regardless of the school, system or level.

As the following response illustrates, some students cannot conceive of the place an apprenticeship might hold in their life or where it might lead them.

> Girl 1: I was thinking about doing that, but I just couldn't drop everything and just do that for months. Like it is good to get paid for learning and stuff but I couldn't just drop everything. (School F – 15)

From the student responses, an apprenticeship was seen as a short-term experience and not as a career option. This type of response could also be interpreted as indicating that in the minds of some young people an apprenticeship is perceived as being part of a rigid and highly complex system, which leads to an uncertain future.

> Girl 3: Like an apprenticeship will go one, two years, what happens after that? Are we back where we started from, and like if you don't like it, could you transfer, or change what you wanted to do without too many hassles?
> (School F – 15)

The possibility of an apprenticeship offering a desirable post-school destination comparable to the high status of a higher education course, or being a better option than the low skill/low paid work they had already experienced, was not a consideration - it was something they might fall back on if all else failed.

In some schools there appeared to be a concerted effort to educate students about their post-school options, both academic and vocational. In other schools, a degree of confusion or the lack of a realistic understanding of the complex processes underpinning the transition from school to work was evident. For example, as late as year 11, some students were still unsure about what career paths were available to them and what type of post-school destination might best suit them. This degree of uncertainty reflected the existence of a significant mismatch between when and how students were exposed to career information and advice. The origin and quality of information loomed large as an issue in the comments made by students. Ad hoc and informal sources of information appear to play as important a part in career choice as the formal structures and processes associated with school-based careers counselling.

Students highlighted the pivotal role they perceived careers teachers played in the process of selecting VCE subjects and post-school destinations. This appeared to indicate that when careers counselling by teachers is done effectively, students feel well placed to make realistic career choices. Students spoke highly of school-organised work experience programs as a worthwhile source of practical information about potential careers.

On the other hand, when asked to comment on the delivery of VET in Schools programs, some students were critical of the manner in which their individual schools managed this. They specifically referred to examples of poor delivery and the inadequate provision of staffing, resources and information. Students were highly critical of the knowledge base of teachers delivering VET in School subjects, and in particular, felt this did not adequately prepare them for a vocational pathway.

Students discussed their views on community and media images and perceptions of apprenticeships/traineeships. Some students felt under pressure from community and family expectations to succeed in school. Students from non-government schools spoke about pressure being exerted from home to do well in year 12 and to undertake a university course. On the other hand, government school students did not appear to be under the same kinds of pressures and exhibited a disenchantment and lack of engagement to schooling in general and, in particular, post-school destinations.

An unexpected issue which emerged from this research project was the apparent negative impact on students of the State Government-sponsored WorkCover television advertisements. The television advertisements featured a series of vignettes focusing on how unsafe work practices can lead to accidents. At least two of the advertisements depicted young apprentices as the victims of either poor workplace practices or bastardisation by coworkers. Conversely, students identified the army's 'The Edge' campaign as painting a positive and even exciting image of what constitutes an apprenticeship or a technical job in the armed forces. It should be noted that both advertisements did have quite distinct target groups. WorkCover had been targeting employers in an effort to raise awareness about the dangers of an unsafe work environment, and the armed forces were targeting young people in a recruitment drive.

Employers

The research team selected a random sample of employers to survey from the database of Western Melbourne Region Economic Development Organisation (WREDO). WREDO is the peak business and local government forum in the western suburbs of Melbourne.

The survey identified a series of structural and economic impediments to the taking on of young people through the New Apprenticeship scheme. The largest industry sectors in the western region - such as building and construction, manufacturing, wholesale/retail and transport and storage - account for the majority of the apprentices and trainees reported in the survey. The survey also found that non-traditional sites of engagement of apprentices and trainees, such as information technology and finance, property and business services, are opening up to apprentices and trainees.

Responses to the survey identified that the process of taking on apprentices combined a formal recruitment (57%) and informal family/community recruitment (43%). The use of informal processes to recruit apprentices is an area that needs to be more closely examined. It is quite possible that large numbers of potential apprentices and trainees are dissuaded from contemplating apprenticeships and traineeships as a pathway because of their lack of connections or access to informal patterns of recruitment.

Employers are unwilling to commit themselves to doing more than maintaining current levels of employment of apprentices in the medium term. One interpretation of the hesitancy to employ apprentices could be due to a number of factors, including uncertainty about the continuation of current high levels of economic growth and uncertainty surrounding the introduction of the Goods and Services Tax (GST). Whilst employers did not specifically mention this, the research team suggests that it is unlikely that levels of employment within their firms would be quarantined from any negative impact the new arrangements might have for their firms.

Seventy-five percent of employers reported that the traditional form of work experience was the primary means of providing students with a 'window' to the world of work. The under-utilisation of structured workplace learning by employers, as highlighted in the survey responses, is a matter for concern and warrants further examination. There appears to be a confusion and lack of understanding amongst employers regarding the difference between work experience and structured workplace learning.

Taking all of the factors into consideration, it is interesting to note that employers listed the growth of their firm (36%), or the size of their firm (27%) as being factors that would either encourage or discourage them from taking on apprentices. The relationship between sustainable economic growth and the potential for, and willingness to, engage higher levels of apprentices was a significant theme to emerge from the analysis of the employer survey responses.

Employers reported that they were concerned with the standard of training of apprentices (41%). Schofield (2000b) recorded similar concerns from employers about the quality and standard of the preparation of apprentices in her report on Victorian apprenticeship arrangements.

Employers identified Registered Training Organisations (RTOs) and the local Training and Further Education (TAFE) institution as the primary source of information on apprenticeships. This could largely be explained by the established relationship employers may have with their local RTO/TAFE in traditional apprenticeship industry sectors. This raises a number of issues around the efficacy of the national advertising campaign run by the Department of Education, Training and Youth Affairs (DETYA). It also highlights the role of New Apprenticeship Centres (NACs) in getting the message out to employers about the new arrangements, including the expanded range of New Apprenticeships available. Improving information flows about the benefits to employers of the program is clearly an area for more concentrated effort by the Australian National Training Authority (ANTA), DETYA and the Victorian State Training Authority - the Office of Post Compulsory Education Training and Employment (PETE).

The proportion of employers reporting that they understood the concept of an apprenticeship and traineeship (40%) was consistent with the proportion of employers who reported that they did not or disagreed (47%). This breakdown was mirrored in the answers received to questions on the clarity of the information on apprenticeships and traineeships, and incentives to business. This could have been caused by the use of the term apprenticeship and traineeship rather than 'New Apprenticeship', and reflects a level of confusion about the differences between traditional and historic notions of an apprenticeship and the newly re-badged New Apprenticeship scheme.

The majority of employers did not have a strong view on the concept of part-time apprentices or trainees. In fact, 46% responded that they did not know whether year 11 and 12 students made successful part-time apprentices or trainees. This lack of understanding, or perhaps lack of awareness of the opportunity to engage part-time apprentices who continue with their studies at VCE whilst undertaking an apprenticeship, indicates that there is some type of information blockage. Any form of information blockage means that the full range of options available under the umbrella of apprenticeships and traineeships is not reaching a crucial audience for this program - the employer.

Conversely, when asked to give an opinion on the long-standing and widely practiced school-organised work experience program, employers responded overwhelmingly that this played a positive factor in the process they used to recruit new staff. 'On-the-job' and 'off-the-job' methods of training were highly valued by employers as part of the process of developing the skills of an apprentice or trainee.

When asked to indicate a view on the adequacy of information provided by external agencies and organisations charged with the responsibility for disseminating information on apprenticeships and traineeships, more employers expressed a view that they did not know (35%), or disagreed (19%) than agreed (32%). The high level of the 'do not know' category may be interpreted as an indication that information flows are not generating the positive effects upon the employers they are designed for.

Whilst a significant proportion (41%) of the respondents to the survey indicated that they agreed with the proposition that apprenticeships and traineeships are meeting the needs of employers, a significant percentage of respondents chose to answer that they did not know.

This response by employers reflects a lack of real understanding amongst a number of employers of the utility of apprenticeships and traineeships. Simply put, a number of employers are hesitant to commit or even comment about apprenticeships and traineeships. The reasons for this can only be hypothesised, but it could be inferred from the results of the survey that the employer responses at least reflect ambivalence towards the issue of taking on apprentices or trainees. The responses to some of the questions seem to reflect the possibility that employers lack useful information about the utility of the New Apprenticeship scheme for their specific firm or organisation. A reason for this ambivalence might be the impact of technological change and the continued increase in productivity and the concomitant downsizing of the labour force in many sectors of the economy. For many firms, productivity might be rising, whilst at the same time their need for skilled workers is declining. It would follow then from a practical standpoint that the only reason some firms would take on apprentices or trainees would be as an act of altruism[6] rather than as part of a human resource strategy.

Employment, education and training perspectives

The final group of subjects interviewed by the research team included a number of employers and representatives of Industry Training Boards (ITBs) as well as stakeholders from within the education system, such as careers counsellors and individuals with responsibility for co-ordinating part-time apprenticeship programs for secondary school students. In the course of these interviews, a number of significant structural and organisational issues concerning the coordination of the New Apprenticeship scheme emerged. In particular, the manner in which information about the program is presented both to employers and to young people needs to be addressed. The coordination and management of the New Apprenticeship scheme was also raised in the interviews as an area which needs to be revamped if it is to become more attractive to employers.

Issues relating to skill formation also emerged, particularly the manner in which for some industry sectors, the national training agenda is at odds with industry goals. Employers are able to increase productivity and at the same time upskill their workforce without taking on workers or apprentices. The segmentation of work into specialised traineeships, which had been traditionally the domain of an apprenticeship, was seen as detracting from the appeal of New Apprenticeships both for employers and for young people. The representatives of the ITBs highlighted the consequences for the economy of an ageing workforce and short-term planning mentality of some employers. In time, the neglect of skill formation could lead to a shortage of skilled workers. Employers will have to be convinced that increasing productivity as a consequence of upskilling their existing workforce and technological innovation can only be effective as short-term solutions. The ageing population will mean that succession planning needs to be addressed by firms if they are to maintain their viability.

This group identified the important role schools play in the transition from school to work, and the significance of careers counselling in this process. Some participants also raised the question of the point at which students are exposed to vocational education. In particular, some of the ITB spokespeople were unhappy with the emphasis some schools were placing on VET in Schools programs as an introduction to a vocational education pathway. The dominance of the VCE and the goal of a high ENTER score as the only desirable outcome for schools was also questioned.

The relationship between VET in Schools programs, part-time apprenticeships and the New Apprenticeship scheme (in general) needs to be carefully examined in order to make the transition from school to work as seamless as possible. The current situation seems to be creating a mismatch between the goals and aspirations of young people and schools and the way in which New Apprenticeships are promoted to school students by ITBs and other agencies. There needs to be some overall plan or agreement to regulate and help direct young people into a number of pathways which can lead on to either work, further study or vocational education and training.

Some recommendations

The research team identified a number of recommendations in the report, clustered under the headings of schools, employers and government.

The following is a sample of the recommendations:

Schools

A pathways planning model should be developed and piloted. This would incorporate the development of a Pathways Portfolio in years 9-10, which would be added to over the subsequent years.

Employers

A more effective media and information campaign needs to be developed which targets employers and informs them of the support available through the New Apprenticeship scheme. Non-traditional sites of employment for apprentices, such as information technology and the service sector, should be encouraged to examine the benefits of the New Apprenticeship scheme.

Government

The state government should implement the findings of the Kirby Review on post-compulsory education and training in Victoria, which would assist in the creation of greater opportunities for young people to engage in New Apprenticeships.

Notes

1. For the purpose of this paper, the terms apprenticeship and traineeship will be used to refer to the Commonwealth New Apprenticeships program.

2. Statistical details are based upon the 1997 Australian Bureau of Statistics Business Register Count.

3. ibid.

4. City Link is a privately-funded electronic tollroad linking three of Melbourne's freeways, creating routes between Melbourne Airport, the port and industrial centres.

5. To represent the non-government sector the team chose to examine Catholic systemic schools, as it was felt that the Catholic system was comparable in size and approach to government schools. The Catholic system is attempting to chart a coherent approach to the provision of VET. The team selected three government co-educational schools and three Catholic systemic schools (one all-boy, one all-girl, and one coeducational school). In each of the schools, students in year 10, year 11 and year 12 were interviewed.

6. A report prepared by the Western Australian Government entitled 'New apprenticeships: making it work' (Western Australian Department of Training 1998, pg 47), describes the factors that motivate employers to take apprentices and trainees as being a mix of 'altruistic' and 'business' motives.

References

Kirby P (Chair) (2000) Ministerial review of post-compulsory education and training pathways in Victoria, Victoria.

Martino J, Demediuk T and Holden S (2000) Increasing opportunities for apprenticeships and traineeships in Melbourne's Western region. Report prepared for the National Centre for Vocational Education Research, Adelaide.

Ratio Consultants and the National Institute of Economic and Industry Research (1995, unpublished report). Building the best: converting opportunity to reality, an economic strategy for the Western region of Melbourne.

Schofield K (2000b) Report of the independent review of the quality of training in Victoria's apprenticeship and traineeship system. Prepared for the Communications Division, DEET, PETE, Victoria.

Western Australian Government (1998) New apprenticeships: making it work, Western Australian Department of Training, Western Australia.

Further reading

Dockery A M et al (1997) The cost of training apprentices in Australian firms. Centre for Labour Market Research, Curtin University of Technology, Perth.

Outer Urban Research Centre (1999) The Western region social profile, Melbourne, Victoria University.

Schofield K (2000a) The good, the bad and the ugly - perspectives from three states on the quality of Australia's apprenticeship and traineeship system. Ninth Annual VET Researchers' Conference, Coffs Harbour, 4-7 July.

Schofield K (1999) Independent investigation into the quality of training in Queensland's training system. Prepared for the Queensland Department of Employment, Training and Industrial Relations, Queensland.

Contact details

Sue Holden
Email: sue.holden@vu.edu.au

Evaluating teacher training for industry trainers

Clare McBeath

Curtin University, Western Australia

Lindsay Nicholson

QRD consulting, West Coast College

This paper examines the selection of research methods for an evaluation of Curtin University's courses in vocational education and training (VET) teacher education.

The evaluation will be carried out by an outside research body. As the courses were newly upgraded and rewritten for distance and online delivery just over three years ago, the lecturing staff are still too close to the material to undertake a new evaluation. The selection of a research body from a technical and further education (TAFE) college, in this instance, will provide impartiality towards the material and a more valid assessment of market need.

Methods will include a review of the literature, including State and Federal government policy directives, interviews with TAFE and industry management, and with Curtin lecturers and surveys of past and present students.

It is a requirement at Curtin University, as at many other educational institutions, to review courses every five years. The review process is an accountability procedure to ensure that courses are regularly updated and their relevance evaluated against the needs of the students and changing practices in society and industry.

Curtin University's courses in post-school teacher education, designed for trainers in TAFE colleges, industry and government, were reviewed and extensively restructured three years ago. There were then five vocational education and training courses offered at undergraduate and graduate level, as follows:

- Associate Degree (Training)
- Bachelor of Arts (Vocational Education and Training)
- Graduate Certificate (Tertiary Teaching)
- Graduate Certificate (Training)
- Graduate Diploma in Education (Higher and Further)

The current courses had been revised using data from surveys of past and present students and industry employers, as well as incidental feedback from students to individual lecturers. The course team had also appraised prospectuses from other universities offering similar courses. The selection of units (or subjects) to be included in the courses was rigorous. Each unit had been individually justified and reshaped according to the survey data before it was accepted by a critical curriculum decision making team.

The restructured courses also had to be adapted to fit new university requirements on credit points, duration and unit size. They had to be written for distance education and reformatted for offering online. It was possibly the most detailed update since the course was introduced over 20 years ago. The upgrade was a very heavy undertaking for all those involved, demanding a high level of professional energy to work intensively on so many subjects at one time, and the development team members were anxious to move on with other aspects of their professional lives when the upgrade was finished.

Now the courses are entering their fourth year and it is necessary to begin the review process again, to evaluate again in time for rewriting in 2002 and for offering the next upgrade in 2003.

This announcement was greeted initially with disbelief. It seemed such a short while since the last upgrade was completed. The staff began to articulate their fear that they had very little new to offer to their courses. The recent, intensive rewrite had left them very close to their own units and drained of new ideas. They had put as much as they could into the materials and it was easy to feel that they could not be perfected any further.

Meanwhile, as we know, the training scene itself has changed. There has been a general downgrading of desired professional qualifications in the training scene. University degrees are undervalued by TAFE colleges, the State Departments responsible for training and employment and by ANTA on the federal scene. Very few trainers receive either time or financial assistance to undertake university studies any more. The exceptions to these constraints are coming from industry, but industry trainers are more difficult to reach and their numbers in Curtin's courses are still small.

Economic rationalism has brought about changes in the language of training. An overemphasis on training as little more than the assessment of observable competencies has encouraged a minimalisation of reflective practice and critical thinking. As much as we may deplore this, we still have to be aware of its existence and make sure our courses acknowledge the strengths and weaknesses of such approaches.

Furthermore, industry reform and the devaluing of university professional qualifications have made it much harder to market university courses for trainers. Student numbers are falling across Australia. In these circumstances, we certainly need to review our courses and see what we can do to make them more attractive to the market for which they were designed.

Why evaluate courses

Virtually all the literature on curriculum development emphasises the importance of evaluation as part of the course development process. However, it is probably the most neglected part of development. Often this is because funded development tends to use up the budget on needs analysis and on the production of course materials, and evaluation of the completed materials is dropped for economic reasons. Or, evaluation may take place during the writing and trialling of the materials, but rarely as a formal process once the materials have been used for a number of years.

Even in the university context, where the five-year review and evaluation process is supported by policy and practice, more often than not, the process is not specifically funded and staff are rarely given release time to do it properly. Sometimes an outside reviewer is called in as part of the process and some of the more important decisions are left in his or her hands, but most of the work usually remains the responsibility of overworked staff.

Yet there are many reasons why courses should be regularly reviewed and updated. Basically, it is to make them more saleable in a highly competitive field, but there is also an intrinsic satisfaction in being able to say that one's own course materials are current, relevant, of high quality, well structured and well written. I suppose most course coordinators would like to think that their own coursework might be the best in the country - or at least that is how we feel.

Tyler, reviewing the evaluation field in 1991, listed six reasons for evaluation, namely:

1. to monitor present programs;
2. to select a better available program to replace one now in use that is deemed relatively ineffective;
3. to assist in developing a new program;
4. to identify the differential effects of the program with different populations of students or other clients;
5. to provide estimates of effects and costs in the catalogue of programs listed in consumer resource centres;
6. to test the relevance and validity of the principles upon which the program is based (Tyler 1991, p 4).

Points 1, 4 and 6 probably apply best to our planned evaluation. We want to monitor it. We believe it is already a good program and we do not intend to develop a new one. We hope to tap into the client groups and their management and check whether we are meeting their perceived needs. We are already locked into university policies regarding funding and cost effectiveness, for better or for worse. Most importantly to us, however, is Tyler's final point on testing the relevance and validity of the current program and making changes if and as necessary.

Specifically, the purpose of our evaluation is to find out the worth or value of the courses in a changing environment. Curriculum teams need to find out how good their courses and materials are, and whether they continue to work in practice, or whether parts have to be changed or adapted.

We need to go far beyond verifying that the course objectives match the course outcomes, as some evaluators claim is what is required. Educational programs may have many aims, many objectives, many outcomes not expressed in the aims and, often, many *stakeholders* or *audiences* with different aims (Straton 1975). Straton saw evaluation as follows.

> Educational evaluation is the process of delineating, obtaining, and providing information about an educational programme which is of use in describing the programme and in making judgments and decisions related to the programme (Straton 1975, p 4).

Some stakeholders are interested in whether students can follow the course, or cope with the structure, the workload or the pace, whether it is at the right level, or how much they are gaining from it. Others are more interested in whether the course was useful to students in the world of work. Some are concerned with how much it costs and whether it is worth the investment, while others again might be concerned with the effect of new teaching modes or new materials.

All these approaches tell us something about the value and the worth of the course, but they do so from different perspectives.

Our perspectives also have to be wide and varied. The stakeholders in our courses include not only past, present and future students, but their employers, their potential employers, and both State and Federal Government departments which have an interest in industry training and are currently influencing standards of professional development in the training field. The university is also a stakeholder, as its requirements and regulations, such as the Consolidated Teaching Policy, have a significant impact on standards and quality, and the length, size and level of the courses. The lecturing staff who wrote and now teach and assess the individual units are also very powerful stakeholders. They are the ones who have been most closely monitoring the units and noticing where there might be discrepancies and changing factors influencing the course. The lecturing staff also are dedicated to their fields of expertise and often have a very wide perspective across its theory and practice in many different contexts. A proportion of the staff have PhDs in the training field, and all are engaged in research, writing and publishing in their areas. It is this very important fact, indeed, that seems to have been overlooked by ANTA in its attempts to remove universities from any significant role in the training of trainers.

The evaluation plan

The idea of choosing an outside evaluator began to form as a result of the staff response mentioned earlier. An outside evaluator would give us a different perspective. An evaluator selected from the market served by our courses would give us better insights into that market's interest and response. The Curtin team began looking around at training research groups in Perth. We also began seeking some funding to make it possible.

Even though our TAFE market has been shrinking and our industry trainer group growing and becoming identified as an important future client, we had to turn to TAFE to find a research organisation equipped to handle the research. The Department of Training and Employment in Western Australia (WA) organised two seminars last year, inviting interested researchers and research organisations to participate and present examples of their research. Most were from TAFE colleges, and it was an excellent chance to get an overview of the sort of research in progress in the State.

We invited QRD Consulting from West Coast College at Joondalup to draw up a proposal. Curtin staff had worked with them before and were impressed by the standard of their work.

QRD Consulting envisaged its role as a combined one, including the evaluation, the maintenance and improvement (defined as effectiveness and saleability) of the Curtin courses. They identified their objectives as follows:

- to overview the current offerings of the program;
- to identify key factors attracting students to, and retaining students in, the program;
- to identify the level of interest or disinterest among training managers in TAFE colleges, government departments and industry;
- to identify future changes for strengthening the program; and
- to identify any untapped potential market.

From these data they proposed to establish the value of Curtin's teacher education courses and their relevance to industry and government vocational education and training needs. They further proposed to provide short term and long term recommendations for improvement of the courses. The final report is planned to give clear insights into the strengths, weaknesses and future opportunities for the Curtin program.

The researchers planned to contact industry and government trainers, academic institutions and staff and individual learners as the main stakeholders in the study.

The background research stage, stage 1, will consist of familiarisation for the researchers with the coursework. This exists in full distance education mode in print-based and online formats, and is easily available. In the five courses there are in fact only 16 different units, so browsing the materials will not be such a large task as it first may seem.

Stage 2 of the research will be a general consultation with the stakeholders, gathering data on which to base the major survey instruments. At stage 2 also, further background research will continue as Curtin lecturers are interviewed in depth to ascertain their perspectives on each of the units. This is expected to provide rich and detailed data.

Stage 2 will also make initial contact with TAFE college management, and managers of those private providers where staff have undertaken one of Curtin's courses. The Department of Training and Employment will also be contacted at this stage, although officially the Department is required to follow the lead of the federal Department of Education, Training and Youth Affairs, and ANTA in particular. It has been difficult over a period of years to ascertain any opinion at all from this group, and we suspect it is because under present economic conditions, they are unprepared to pay for training. This is the situation throughout Australia at present, although there are indications that things might change in the future. We envisage that much of the contact made with management groups at this stage is more awareness raising than data collection.

The third stage will be the major survey, the nature of which will not become final until the completion of the interviews in stage 2. However, the survey will include present and past successful students, and those who have dropped out. It is hoped to gather data on how the course has helped, or is helping, them with their careers and with their sense of professionalism. It will also seek information on details of the strengths and weaknesses of units and where students and ex-students believe units should be changed. It is expected at this stage that another survey will be conducted with selected management stakeholders, to collect more global data on their perspective on the usefulness and desirability of the Curtin courses.

An in-depth analysis and discussion of results should assist the evaluators to come up with a set of recommendations to be published in a detailed report.

Conclusion

It is an interesting experience setting up such a detailed evaluation at a time when our traditional market group is less interested than it has ever been. There is an undeserved anti-universities climate growing in the training field. On the other hand, university lecturers in the training field are as informed and up to date as any group in the country and, in Curtin's case at least, we believe we have an excellent product for sale.

The evaluation may reach findings which we don't want to hear, and we may have to make changes we don't want to make. However, the evaluation will have two positive results for Curtin University. One is that, after any recommendations are put in place, we will have strong evidence to continue to claim that our courses are relevant, up to date and based on industry training needs. The second result is that we will have promulgated some awareness raising among a group that has been trying to ignore us. It is possible that they might be impressed.

References

Straton R (1975) Basic issues in the evaluation of innovative educational programmes. Modern Teaching, vol 32, pp 1-19.

Tyler R W (1991) General statement on program evaluation. In M W McLaughlin and D C Philips (eds) Evaluation and education: at quarter century. Chicago: National Society for the Study of Education.

Contact details

Clare McBeath
Email: mcbeath@spectrum.curtin.edu.au

Urban disadvantage and provider equity strategies

John McIntyre and Mez Egg

Research Centre for Vocational Education and Training, University of Technology, Sydney

This paper explores the underlying problem of the meaning of 'disadvantage' in equity research in the vocational education and training (VET) sector. Current policy discourses of 'equity' in VET tend to gloss over the nature of the socio-economic disadvantage that underlies questions of the participation and achievement of the so-called 'target equity groups'. While indexes of socioeconomic disadvantage are widely applied in education, their application to VET participation is as problematic. Postcode participation studies of Sydney and Melbourne have shown there is strong participation and achievement in disadvantaged areas identified by such indexes. A key question then, is how these patterns of participation result from the ethos and programs of those TAFE providers responding to the needs of large VET clienteles in such areas. The analysis requires a multi-dimensional framework encompassing client characteristics, provider factors and the way these interact in and are modified by the nature of the regional context. Research along these lines shows that an important focus of equity research needs to be the nature of the local clienteles that takes advantage of the programs that public providers customise in their knowledge of local disadvantage and the need for 'equity'.

Disadvantaged areas and local VET clienteles

Recent research (McIntyre et al, in progress) has attempted to throw the spotlight on the question of the nature of the local clientele of TAFE, viewed in its regional context and in terms of the evolution of equity policy.

The terms 'local clientele' and 'regional context' signify the rediscovery of the 'community' in VET policy research, suppressed at the height of training reform and now rediscovered during an era of political reaction in the countryside. (The significance of the communitarian politics cannot, regrettably, be explored here, but see McIntyre in press).

A 'clientele' is a body of individual students (clients) that share particular social, economic and educational characteristics, who may be 'targeted' for participation attempts and to whom educational services, including equity programs, can be marketed. A local clientele is one that lives and participates in VET locally. The question of local clientele - who uses VET providers and why they do - is a key issue in the analysis of VET participation and now one receiving attention. From an equity perspective, it is important to identify the terms on which disadvantaged individuals are participating and whether they are achieving outcomes to the same degree as other clients.

There are some difficulties in defining 'disadvantage' in this context and its ambiguous relationship to the VET equity policy vocabulary. For this reason, we need to recount the policy history of 'equity' and trace its development from the earlier concept of disadvantage (and earlier terms of social deprivation or underprivilege).

'Disadvantage' is defined in socioeconomic terms. Though it has some problems, a useful contrast can be made between socioeconomic disadvantage and sociocultural characteristics. In studying 'local clientele' from disadvantaged areas, the prime interest is the employment and schooling levels. Such socioeconomic criteria provide the primary benchmark of disadvantage. It is also necessary of course to monitor sociocultural participation and its relationship to socioeconomic disadvantage, without confusing them. Sociocultural factors, including being Aboriginal or non-English speaking, may lead to lower education or employment levels that define socioeconomic disadvantage.

The localised nature of 'disadvantaged clientele' using TAFE and ACE providers has been established by a series of studies of participation in Sydney and Melbourne postcodes (McIntyre 1998, 1997, 2000b). These studies are made possible by the collection of student home postcodes in national VET statistics, an item that has relatively good data quality. Recent work has mapped VET participation onto patterns of 'urban disadvantage' as defined by the Australian Bureau of Statistics (ABS) indexes of socioeconomic disadvantage. These indexes, in brief, distinguish between more specific indexes based on economic (income and housing) or education-occupational factors (qualifications and occupational group). A full discussion of the application of ABS indexes of socioeconomic disadvantage can be found in McIntyre (2000a, 2000b).

One obvious trend from these studies is worth highlighting here (Tables 1 and 2). When Sydney or Melbourne postcodes were grouped by degree of disadvantage (sextiles), the greatest number of TAFE clients were found to be in the most disadvantaged postcodes. There were also other important differences in the educational and employment characteristics of the clients, and their sociocultural status (for example whether they are of non-English speaking background). It can be fairly concluded that TAFE clearly serves large groups of 'disadvantaged clientele' in these postcodes.

The Melbourne study (McIntyre 1999, 2000c) compared TAFE with adult community education (ACE) participation in over 2000 postcodes. This showed that while TAFE is concentrated in more disadvantaged postcodes, ACE participants are fairly equally distributed across the socioeconomic range. This points again to interesting questions about the socioeconomic characteristics of ACE clienteles, and continuing discussion about the role of different sectors. The study is consistent with the well-documented trend of ACE to attract large numbers of more advantaged clients (see McIntyre 2000c; McIntyre et al 1996).

Table 1: Disadvantage and VET participation. Sydney postcodes (1996)

Sextile	Total partic.	TAFE	Partic. rate (a)	Emply % (b)	Yr 10 % (c)	ATSI	NESB
1	50,944	1306	7.9	46.1	34.4	2.1	51.1
2	40,468	1038	6.9	54.2	34.1	3.0	36.8
3	25,341	618	7.0	57.7	33.8	2.4	27.5
4	29,369	734	6.9	60.6	32.4	2.2	21.1
5	20,944	537	6.4	62.7	29.4	1.8	15.5
6	19,810	495	4.9	62.2	22.0	1.7	19.0
All	186,876	785	6.7	57.3	31.0	2.2	28.4

Table 2: Disadvantage and VET participation, Melbourne postcodes (1996)

Sextile	Total TAFE partic.	Av. TAFE partic.	TAFE partic. rate (a)	Employ (b) %	Yr 10 or less % (c)	Total ACE partic.	Av. ACE partic.	TAFE-ACE ratio
1	51,380	1427.2	9.7	49.4	30.2	17,080	474.4	0.40
2	41,082	1081.1	8.8	58.5	28.1	16,170	425.5	0.44
3	30,389	799.7	8.4	56.0	29.1	12,915	339.9	0.52
4	29,061	764.8	8.9	56.0	26.5	14,374	378.3	0.54
5	33,140	872.1	7.6	53.1	20.5	19,600	515.8	0.75
6	19,960	486.8	6.8	51.2	18.5	16,206	395.3	0.93
All	205,012	895.2	8.3	54.1	25.4	96,345	420.7	0.60

Source: McIntyre (2000c). Sextiles grouped by Index of Socioeconomic Disadvantage. Legend: (a) = the number of 1996 TAFE students from the postcode as a proportion of persons aged 15 years and over; (b) = students self-employed or employed part-time or full-time; (c) = students with year 10 or less prior schooling as a proportion of all students. The last two rates ignore the 'not stated' numbers in each case.

A strong case then can be made for identifying disadvantaged 'regions' and analysing their local VET clientele, and more particularly in what respects these are disadvantaged clienteles. This kind of analysis is essential for developing a convincing analysis of the 'community benefits' of participation in VET, whether TAFE or ACE or private provision. Such an analysis is needed if the current interest in 'learning communities' and regional developments is to feed into VET policy and correct its recent neglect of the 'community dimension' of adult participation.

'Equity' and its policy history

How to conceptualise the analysis of local clienteles is a problem that first requires some troubling of the concepts of equity.

Although as Falk states (1999, p 47) there is a commonsense view that equity means equal - which means the same - as individuals are clearly not 'the same', equity is frequently taken out of 'the realm of the commonsense' and placed into the 'too hard basket'. So although most people hold and can express this commonsense view, it is commonsense (ie manifestly true) only to the extent to which it is not examined.

Beyond the commonsense view, equity is in fact a 'slippery, illusory notion, embedded in and so constrained by its ideological framings and popular mythologies' (Butler 1999, p 31), and equity policy and practice reflect this. Government policy has had a major role in developing equity practices in VET through both funding regimes (TAFE, National Training Reform Agenda) and various commissions into related areas (Fitzgerald Report, Henderson Report). In the last decade in particular, equity policy and practice critique, analysis and research have contributed to the development of a broader view. The emphasis of the activities of government and researchers is always to explore and develop two related and enmeshed issues. The first issue is that of equity as an expression of 'educational fairness' or a 'fair go for all'. This is the debate around funding levels, targeted versus mainstream programs and individualised versus community development responses. The second issue is one of effectiveness and the search for specific strategies that do deliver equity outcomes and also involves the search for satisfactory measures of the outcomes of these strategies. Practitioners' responsibility then is to take the policy rhetoric of 'target equity groups', 'key performance measures' and so on and develop their own commonsense (and actionable) view of equity.

Various approaches or lenses have been used to look at equity in VET. Butler and Ferrier (2000) suggest that equity policy should be interrogated for its role in enabling a 'screening' of the privileges of the 'norm' as well as acting as an organising principle through which equity or justice can be 'distributed'. Powles and Anderson (1997) suggest an approach to equity provision that examines the underlying goals of provision and whether policy and practice serve a social service role (ie whether they are based on the nature of disadvantage) or whether they serve an economic utility role and are based on the levels of disadvantage. In many Economic Union countries, in particular in Britain, use of the term 'equity' has largely been replaced by 'social exclusion'. This concept is a response to globalisation and highlights the reignition of the social and economic divisions between those who benefit from the new economy and those who are 'left behind' or excluded. It is a concern for the costs of social alienation.

Equity appears in VET policy in varying guises. The storyline of contemporary equity policy is of a person lifting themselves from the social and economic ignominy of the dole queue or single parent's benefit to the buying power and opportunities of a well-paid job. Through their participation in VET and hence the labour market, individuals become respected and valuable members of society. In contrast, some earlier policies (especially in the 70s and early 80s) emphasised the need for an appropriate response to address poverty. Reform measures reflected a concern to overhaul the state and its institutions as the key to overcoming the poverty that was at the heart of uneven life experiences. The Kangan and Fitzgerald reports reflect that view of equity policy development.

Each of these contrasting snapshots of VET equity policy is underpinned by a different concept of equity. On the one hand, there is a view of the individual who (simply) needs help to overcome barriers and gain access to a multitude of opportunities. But on the other hand, in the 70s example, equity is seen to be impossible to achieve without addressing the inequity of the systems supporting the state. Yet another view, perhaps a Marxist view of equity, would suggest that without changing the capitalist state itself, equity is not possible. Thus the concept of equity is highly variable in meaning, which reflects origins based on different paradigms or modes of thinking about society. Each paradigm attributes the causes of disadvantage to a different foundational cause, and is grounded in a different political and philosophical ideology. Each provides an explanation of multiple forms of social disadvantage - economic, social, political and cultural.

Table 3 is an attempt to present an interpretation of the relationship of these concepts to underlying social theory.

Table 3: Concepts of equity (after Egg, in progress)

Strategies to promote equity in VET	Equity strategies not needed: provide welfare to those who are unable to support themselves.	Provide access courses and 'second chance' education opportunities to enable people to move in from the margins.	Manage diversity, address social exclusion through close connections between welfare and the labour market.	Remove barriers to increase the level of representation of target groups.	Go out to the people, work with them to identify and develop tools to empower collective social action.
Role of work	Work and equity do not have an association.	Work is how people express their value to society.	Welfare is through work.	Work is an important aspect of people's lives - all people have the right to work.	All people have the right to participate in work under healthy and suitably valued conditions.

Focus or goal of equity	Opportunities are available to all; there is a natural order to society and only some can benefit.	Develop each individual to maximise his/her economic potential. Enable individuals to improve themselves, thus they will have access to the benefits of society, improving their return to society through increased productivity. Avoid waste of talent.	(Individual choice) Social exclusion is a failure of the relationship between the individual and society and arises through problems of resource allocation. It also involves power relations, culture and social identity.	(Distributive justice - Rawls) Make the education system accessible to the individual. By redistributing resources, inequalities can be addressed.	(Social justice) Non-dominant groups should be supported and resourced to develop tools to challenge an oppressive system
Dominant policy tools, issues	Maintains the status quo, social and class reproduction.	Utilises human capital, managerialism.	Allows/enables the marketplace to dictate. Economic rationalism, mutual obligation.	Addresses social disadvantage, arbitrates between competing interests in society.	Requires change in economic system, in order to effect change in social relations and institutional processes.
Political ideology	Conservatism	Neo-conservatism	Neo-liberalism	Liberal/liberal humanism	Socialism, radical socialism

The divisions should not be viewed as rigid. In particular, although a strategy (eg target equity groups) may emerge through one view of society (ie distributive justice), it may well be considered a suitable (or pragmatic) strategy through another lens (such as economic rationalism). However, such a representation of concepts can offer an indication of the sources of some of the stresses involved at the levels of both policy development and policy implementation.

The table was constructed through examination of various strategies for addressing equity issues and also various perceptions of work. The role of work is included in the recognition that it has become a key component in current views of equity concepts. More broad connections are then made with the overall focus or goal of equity strategies in the education system and then some of the broader policy issues associated with each of the parent ideologies that are set out on the final line. The table could have been presented in reverse order ie with 'political ideology' the starting point. However, this 'view' is intended to give a model for the process of interrogating practice in the search for underlying influences (Egg, in progress). One important limitation of such a table is that it fails to take account of the contextualised nature of equity practice. Such practice may be equally influenced by prevailing macro or micro level policies, resource availability, organisational flexibility and so on as it is by underlying concepts. Examining this interplay is the project of the NREC research.

Conceptualising provider equity strategies

Past work on equity policy since the period of training reform has focused on the client perspective, identifying and describing target groups such as indigenous Australians, women, people with a disability, people from a non-English speaking background and more recently, among 'emerging' classifications - people with a mental illness, people from rural areas, prisoners and mature age workers facing a restructured workplace. Specific equity strategies, including the development of appropriate pathways and options, are then based on the group profile.

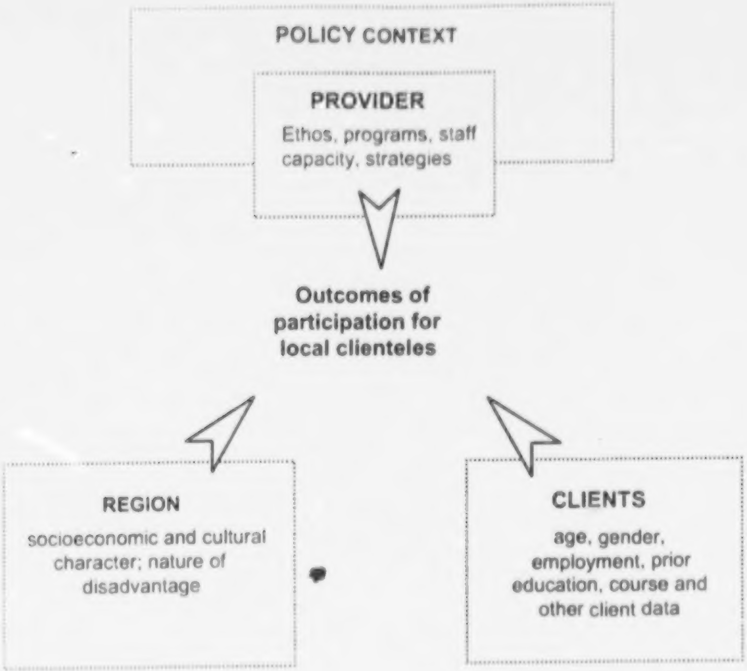
However, from a perspective of urban disadvantage, it is necessary to locate 'the disadvantaged' in a local and regional context. The abstract social space that is implied in the language of 'target equity group representation' needs to be replaced by a focus on local clientele that come from disadvantaged urban areas (leaving aside questions of non-metropolitan regions). To take this perspective is to ask how disadvantaged people in urban areas access the system and what benefits they derive from their participation in TAFE in large numbers, according to the studies reported earlier (McIntyre 2000b, 2000c).

Such research needs a robust framework to understand how participation and outcomes are achieved through a complex set of interactions among specific client characteristics, provider equity strategies and locality factors. This framework brings together client, provider and regional perspectives on equity research.

Most importantly, such a framework reinstates the provider in the analysis, since institutions, or rather the professionals that work within (and beyond) them, are agents who propound and pursue strategies designed to achieve equity in the system. How professionals 'strategise around equity' in disadvantaged Sydney and Melbourne TAFE catchments is highly researchable.

A framework for research is needed if we are to grasp how equity is produced through an interaction between providers and clients, mediated by socioeconomic and cultural influences in particular localities, including the labour market, transport and other community infrastructure, population movements and so on. How then do we conceptualise a framework that would allow us to rediscover (for it was lost in a period of training reform) the 'community dimension' of equity policy (McIntyre 2000a)?
The broad parameters are suggested by Figure 1 (based on McIntyre 2000a, and see also McIntyre et al 1996) suggests one possible schematisation.

Figure 1: Framework for analysis of equity in local participation


POLICY CONTEXT
PROVIDER
Ethos, programs, staff capacity, strategies
Outcomes of participation for local clienteles
REGION
socioeconomic and cultural character; nature of disadvantage
CLIENTS
age, gender, employment, prior education, course and other client data

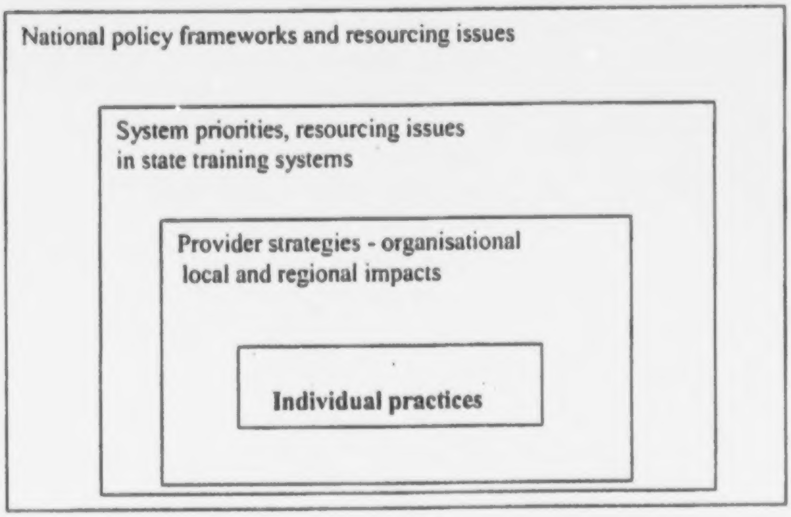
A variation of this kind of multi-dimensional framework is that proposed by our current NREC-funded research (McIntyre et al, in progress). The three dimensions are referred to as client, provider and regional perspectives on equity research. *Client perspectives* refer to the dominant concept of 'equity target groups' and the factors that compound disadvantage, creating barriers to access, retention and success that are often exacerbated by systemic and institutional barriers. *Provider perspectives* highlight the role of the provider in generating equity outcomes through delivering or brokering 'workable solutions' at the local level to generate desired outcomes. It focuses on what is required to customise equity strategies for local disadvantaged clienteles, including the development of pathways and options. *Regional perspectives* emphasise that equity in the VET system is constrained by great social and economic variations within the capital cities and between urban and regional and rural communities, recognising that differing labour market, employment and sociocultural factors impinge on the 'provider-client interactions' already referred to.

VET providers take these local and specific conditions into account and include the issues that arise as part of their practice in constructing responses to equity policies. Thus, there is a need for a further level of analysis to examine the active roles that professionals play in making their organisation responsive to the local context.

Figure 2 attempts to suggest how particular localised and responsive equity strategies are 'nested' within larger policy, resourcing and professional rationales that 'construct' the provider, depicted by policy as 'delivering' outcomes.

It is at this level that our NREC research is attempting to uncover the 'agency' of the TAFE Institute in producing equity outcomes for the local disadvantaged clienteles through programs that respond to the characteristics of these clients. Though it is not usually regarded as customisation, it is precisely that (see ANTA 1998).

Figure 2: The 'nesting' of equity practices within TAFE policy


National policy frameworks and resourcing issues
System priorities, resourcing issues in state training systems
Provider strategies - organisational local and regional impacts
Individual practices

Conclusion

This paper has attempted to build on past work that attempts to locate equity in VET participation in its regional or 'community' context. There is still much to explore in this area, now that there is an increasing policy interest in learning communities and the re-discovery of regional development as a policy frame for VET. The national key centre program of the UTS Research Centre for VET will this year be exploring the development of learning communities in four Australian capital cities.

What emerges from the work on urban disadvantage in urban localities in Sydney and Melbourne is the importance of a concept of 'local equity clienteles'. This concept highlights the way residents in a given disadvantaged area benefit from the strategies of providers that recognise both their needs and characteristics and the characteristics of the region, to modify what is possible in the way of equity outcomes: increased skill levels, employment opportunities, entry to further education and so on.

References

Australian National Training Authority (1997) Stocktake of equity reports and literature in VET. Brisbane: Australian National Training Authority.

Australian National Training Authority (1998) Achieving equitable outcomes. Brisbane: Australian National Training Authority.

Australian Committee on Technical and Further Education (1974) TAFE in Australia. Report on needs in technical and further education (Kangan Report), vol 1. Canberra: Australian Government Publishing Service.

Butler E and Ferrier F (2000) Don't be too polite, girls! Women, work and VET: a critical review of the literature. Adelaide: National Centre for Vocational Education Research.

Butler E (1999a) Technologising equity. The politics and practices of equity and workplace learning. In D Boud and J Garrick (eds) Understanding learning at work. London: Routledge.

Butler E (1997) Beyond political housework: gender equity in the post-school environment. Report prepared for the Premier's Council for Women, Sydney, New South Wales.

Egg M (in progress) VET provider understandings of equity. Master of Education, Honours thesis. University of Technology, Sydney.

Falk I (1999) Equity: VET for the good of the nation. National Workshop on Equity Research: report and papers from a national workshop convened by the RCVET at the University of Technology, Sydney, 21-22 May. RCVET Working Paper 99:10.

Fitzgerald R (1976) Poverty and education in Australia. Fifth main report, Australian Government Commission of Inquiry into Poverty. Canberra: Australian Government Publishing Services.

Golding B (1996) Education and training pathways: no end to travelling. Learning and work: the challenges - fourth International Conference on Post-Compulsory Education and Training, Gold Coast, 2-4 December.

Golding B, Volkoff V and Ferrier F (1997) Summary report of access and equity literature on VET in Australia: barriers, strategies and policies. Brisbane: Australian National Training Authority.

McIntyre J (1998) Equity and local participation in VET: some preliminary findings in Sydney postcodes. In Quality and diversity in VET research, Proceedings of the second annual conference of the Australian Vocational Education and Training Research Association, Sydney, pp 246-253.

McIntyre J (1999) A further local participation study: TAFE and ACE in Melbourne postcodes. In Research futures, future research - Proceedings of the third annual conference of the Australian Vocational Education and Training Research Association. Sydney: The Association.

McIntyre J (2000a) Equity and local participation in VET: policy critique and research directions. Australian and New Zealand Journal of Vocational Education Research, vol 8, no 1.

McIntyre J (2000b) Applying disadvantage indexes to regional VET participation. Working Paper 00-31, University of Technology Research Centre for Vocational Education and Training, Sydney.

McIntyre J (2000c) Urban disadvantage and VET participation. Working Paper 00-32, University of Technology Research Centre for Vocational Education and Training, Sydney.

McIntyre J (in press) The discursive construction of ACE in national policy. Australian Journal of Adult Learning.

McIntyre J, Brown A and Ferrier F (1996) The economics of ACE delivery. Sydney, Board of Adult and Community Education.

McIntyre J and Kimberley H (1997) Planning pathways. Women's pathways from ACE to VET. Research report commissioned by the National VET Women's Taskforce. Fremantle: WA Department of Training.

McIntyre J, Volkoff V and Egg M (in progress) Beyond participation: client group, regional influences and provider strategies in equity outcomes. National Research and Evaluation Committee-funded research project.

Powles M and Anderson D (1996) Participation and access in TAFE: social service or economic utility? Australian and New Zealand Journal of Vocational Education Research, vol 4, no 1, pp 97-129.

Volkoff V and Golding B (1998) Drowning not waving: equity target groups in the marketplace. In VET research: influencing policy and practice - Proceedings of the Annual Conference of the Australian Vocational Education and Training Association, AVETRA, Sydney.

Contact details

John McIntyre
Email: John.McIntyre@uts.edu.au

Embracing postmodernism in classroom practice

Heather McKay

Douglas Mawson Institute of TAFE, South Australia

Background

When I returned to university to studies in the late nineties after a gap of almost twenty years, I felt what can best be described as 'culture' shock. Indeed, it seemed like a foreign country with different beliefs, different rules, different technology and even a different language. I had to learn how to decipher the works of Habermas and Foucault, engage with the developments in feminist thought and contemplate the wholly new terrain of postcolonialism. But unlike a holiday to an exotic destination, I was not allowed to view this as a break from my 'real' life. The course requirements directed me to examine and develop my professional practice in the light of this new experience; an integration was demanded.

At the same time, in the real world of the classroom I was being directed to follow the Australian National Training Authority (ANTA) down the road of Competency Based Training. This certainly made for an interesting challenge; to review and develop my practice from a postmodernist perspective whilst implementing a model of teaching that appeared to be strongly imbedded in a modernist construction of knowledge.

Also impinging on the classroom was a growing move towards internationalisation which was defined by TAFE as:

> a process that prepares TAFE and its students for successful participation in an increasingly interdependent world. The process should permeate all facets of the work of TAFE fostering global understanding and developing skills, attitudes, and values for effective living and working in a diverse world. It should link to the multicultural reality of Australian society and contribute to the capability of Australian industry in competing in a global economy.
> (Australia TAFE International 1996, p 4)

The approach

One of the greatest dilemmas about implementing competency-based training in Child Studies is not what is stated in the training packages but what is left unsaid; the underlying assumptions. Issues such as cultural beliefs and attitudes, for example, are addressed, but generally only at the level of 'variable'. This means that culture (ie 'other' culture) is considered as a variation within the framework of the competencies, but the cultural construction of the competencies themselves is not considered (a marginalist approach to cultural diversity).

In my work with students, I try to problematise the notion that the competencies are simple applications of the 'truth' by attempting to uncover the underlying beliefs and values. I do this by encouraging students to:

a) interrogate the underlying meanings of 'different' practices;
b) question the 'obvious'; and
c) be aware of the possibility of multiple understandings.

Examples

Example 1: Exploring 'different' practices

Element 1 of the competency 'Support the rights and safety of children within duty of care requirements' (CHCCHILD2A) states that students should 'identify indicators of abuse and act appropriately'. Underpinning this element appears to be the assumption that there is a common universally accepted definition of what constitutes abuse, but this definition is conspicuous in its absence.

This becomes problematic when students are confronted by practices that challenge their personal 'common sense' definition of abuse. On a number of occasions in classes, the practice of 'coining' has been raised. Some students (usually from the dominant cultural background) are adamant that this is definitely 'abuse', whereas others (usually from an Asian background) perceive it to be a 'health practice'. Rather than attempting to smooth over this dilemma, I attempt to utilise it as a tool to stimulate students to reflect more deeply on the whole notion of 'abuse'.

Initially the class works on developing a definition of abuse that they can all agree on; eg 'an action that harms a child'. Using this definition, the practice is then examined using de Bono's (1985) P M I process, with the whole group contributing. This then identifies a whole series of underlying criteria that students are using to make the decision as to whether the practice is abusive or not, eg the physical consequence of the action, the intention of the actor, the perception of the child, the location of the action, the interpretation of the action etc.

Students are then given further dilemmas to analyse using the criteria they have developed:

a) is immunisation abuse?
b) is acupuncture abuse?
c) would a parent who believed immunisation to be harmful but assented due to social pressure be guilty of abuse?

Students are then encouraged to reflect on their original definition and to develop a more complex set of ideas about what constitutes abuse. I then relate to students an incident which challenged my notions of child 'sexual' abuse, particularly in regards to the possible multiple interpretations of the event.

The danger in this approach is that students will become so confused that they will be paralysed to act (with possibly disastrous consequences for the child), whilst the danger of not considering this is that students will act without due thought (with equally disastrous consequences - see Reid et al 1990, p 138).

Example 2: Questioning the obvious

Competency CHCIC2A is: 'Guide children's behaviour'. Rather than launching straight into teaching techniques, I begin by asking the students to answer the question 'to where?' This encourages students to identify the underpinning philosophy that predicates all that they do in regard to children's behaviour.

Commonly, students respond with notions about autonomy and self-actualisation etc which are derived from their studies of developmental theorists such as Erikson and Maslow. I then share with them the words of Shin-Ichi Terashima from Ryuuku University's school of Medicine.

> To distinguish oneself from others, or to live, as idiom has it 'outside the mosquito net', is to be condemned to an isolated lonely existence. The norm is to accept one's position in a hierarchical society and to abdicate decision-making to others. (quoted in Cornell 2000, p 26)

This then raises the proposition that there may be alternate goals for child development and raises the question: who decides?

Next, I ask students to answer the question 'why do children need to be guided?'. This has provoked some interesting underlying philosophical questions, eg are children born 'bad' and need to be helped (or punished?) to become good, as seems implied in some Christian doctrines? Are they born 'good' and need to be protected from the 'badness' as has been explained to me by Hindu parents in Bali? Are children born inexperienced and need to be allowed to make mistakes from which they will learn, or should they be protected from making mistakes?

Element 1 of competency CHCIC10A ('Establish plans for developing responsible behaviour') requires students to identify and review behaviour causing concern. The criteria for this identification, however, is left unstated', as is the obvious question 'concern for whom?'

Initially I explore with the students the criteria for deciding whether a behaviour is a problem. Generally the students come up with the categories of safety, interfering with the rights of others, respect for the environment and (sometimes) social standards. These ideas are then probed with further questions and disparate examples.

Regarding safety, I pose these questions:

- Do you think children should be kept absolutely safe?
- What situation would be required to keep a child absolutely safe?
- What is an acceptable level of risk? Who should determine it and how?

Students are then ask to consider examples of practices drawn from my observations, such as:

- A local child care centre where 4 year-olds weren't allowed to use table knives;
- a local Montessori kindergarten, in which 3 year-olds were encouraged to cut fruit with sharp knives; and
- a Fijian Island community, where I witnessed pre-school children competently cutting the tops off coconuts with cane knives.

The other criteria are then discussed in similar fashion.

Example 3: multiple understandings

After input on the four goals of misbehaviour - as derived from the work of Dreikus (1968 cited in Gartrell 1994), students are given the following scenario from the learning guides to analyse:

Jack (5 years)

> At morning tea time when other children are sitting at the table to have their morning tea snack, Jack just sits. Jack waits, and waits, and waits. He looks at the food, but he *doesn't do anything*. He sits in an apathetic manner. Finally, a caregiver comes over and says to Jack "Are you going to have something to eat, Jack?" Jack just mumbles. She takes the biscuit and cheese from the plate and puts it on Jack's plate [illegible] "There you are Jack. Come on, you poor little thi[illegible] You can eat it up." This sort of behaviour [illegible] at when he is asked to put his clothes or boots on [illegible] nable.

Generally the students' analysis concurs with that of the learning guide; that Jack has learnt to 'belong through gaining attention and recognition by being incapable and unable'. I then propose to the students that Jack is actually this child's 'English' name; his birth name is Zulkifli and that he has recently come from Indonesia. He only speaks Javanese and hasn't been in group care before, as previously he was looked after by the family's pembantu (servant).

BEST COPY AVAILABLE

I explain to the students that in my experience of Indonesian society, it is considered bad manners to eat or drink anything placed in front of you until you are expressly invited to do so. I also suggest that cheese might not be a familiar (and possibly not an acceptable) food to Zulkifli.

I then recount to students a story told to me by a postgraduate engineering student about the problems his daughter had faced with the expectations of autonomy in day care in Australia and the further problems he anticipated for her in readjusting when they returned to Indonesia.

Students are then asked to reassess their analysis in the light of this added information, with many determining that the 'problem' has inappropriate expectations on the part of the workers.

Conclusion

What I have presented are illustrations of how I have tried to integrate my understandings of postmodernism and internationalisation into classroom practice in this era of competency-based training. My aim is to present these ideas in ways that are accessible to certificate and diploma-level students, as I am concerned that much of the literature is difficult to decipher, and in practice exclusionary.

Overarching all of this, however, is my conviction that my role as an educator is not just to transfer skills, but to inspire in students a spirit of inquiry. As child care workers, I want them to continue to observe, read, reflect, discuss, question and challenge - this to me is the real meaning of 'learning on the job' and 'lifelong learning'.

References

Australian TAFE International (1996) A national framework for the internationalisation of TAFE, guidelines for Australian TAFE institutions. Brisbane: ATI.

Cornell A (2000) The third opening. The Australian Financial Review Magazine, July.

Gartrell D (1994) A guidance approach to discipline. New York: Delmar Publishers Inc.

DeBono E (1985) Conflicts: a better way to resolve them. London: Penguin Books.

Reid J and Trompf P (1990) The health of immigrant Australia: a social perspective. Sydney: Harcourt, Brace Jovanovich.

Community Services and Health Training Ltd. Training: the wave of the future. Community Services Training Package (Children's Services). Melbourne: Australian National Training Authority.

Contact details

Heather McKay
Email: heathmck@dmi.tafe.sa.edu.au

Online student services: an overview of the provision

Cathy McNickle (author) and Rhonda Daniell (presenter)

CURVE, Canberra Institute of Technology, Australian Capital Territory

Online student services - an online initiative within The Framework for National Collaboration in Flexible Learning in VET (2000-2004)

This paper will provide an overview of online student services being used by nineteen VET and higher education institutions. Visits to sites across Australia were undertaken between July and September 2000 as part of the *National Strategy and the Collaborative Framework and Strategy 2000.*

The sites were selected after a web search, using the student support services framework presented in the literature review. This framework included support services provided for students in the following four stages of the learning cycle:

- prospective student
- enrolling student
- enrolled student
- graduating student

The study found a wide range of strategies for student support services being utilised. Some are focusing largely on the teaching/learning aspects, while others are providing a more holistic approach to support services. It should be noted that in the majority of cases the services provided are offered in a variety of modes.

Full presentation

A high percentage of participating institutions covered all dimensions of support within the framework used in this project, from the needs of the prospective student to the needs of the graduate, these varying in depth of information and accessibility.

The prospective learner

In a number of institutions, the prospective learner has access to less information and assistance than students in other stages of the learning cycle. This is especially true in the areas of career and course advice, with access to career advisors being quite difficult. There are limited courses 100% online, with many institutions offering mixed mode. In contrast, course information is extensive, with some sites providing prerequisites and articulation arrangements. A few sites have links to other career sites and career pathways.

Career advice	The majority of participating institutes have career advice online. This information is also available face-to-face, in hardcopy, over the phone and by email in a number of cases. One provider presents this information in sections for undergraduates, postgraduates and for international students. Another site compiles prospective students' requests for information into a database and sends them information on Career Days etc. Limited sites have their articulation arrangements online also.
	The majority of providers have their Handbook online. *GetAccess* (www.getaccess.wa.go.au) is an online, career-based resource which includes information on: • Self-awareness • Western Australian-specific careers • Labour market • Employment and train [illegible] ation • News – information on the labour market trends, employment and training issues • Careers – career profiles • Career Café – a chat facility • Jobs An interactive career game is also included.
Course information	The majority of sites have their course information online, some with the Prospectus and course summaries. Some include a glossary of terms in their course information, and some also provide this information by way of a 1300 number, email and hardcopy. In a limited number of universities, the specific divisions are responsible for the information that is presented online. Details are also presented for specific courses.
Course advice	The majority of providers have some course advice online. This is also available in hardcopy and face-to-face and in some circumstances is linked to the specific faculty. Career advice is available to students in some institutions, in a range of modes. Limited sites include the prerequisites for the courses.

Information on admin. details (fees, RCC, enrolment or application procedures etc)	Sites have included information on RCCs, Skills Recognition, Advanced Standing and scholarship details, with one institution providing a Credit Precedent List online. Some have fully dynamic forms that change to suit the course. Some institutions have facilities for enrolment and payment online, however, the majority are still striving toward this. Sites have links to information on UAC, the Schools/College Documentation Scheme etc - some with details and availability of admission and admission forms. To a lesser extent, some also have the capability for prospective students to complete forms and send them online.
	The availability of *Change of enrolment* online is quite limited. One provider has a helpdesk to the host provider and the online information called 'Contact Us'.

Enrolling students

Enrolling students have information available on the enrolment process, but the actual facility for e-commerce is very limited, with options being confined to paying over the phone with a credit card, in person and by email or mail.

At the time of the visits there were very few institutions providing complete enrolment online. Many indicated that they were in the process of developing this facility.

Enrolment process	The majority of participants have enrolment information and processes, and enrolment and enquiry forms online. A limited number have the provision of enrolling and re-enrolling online. This information can also be obtained via email, mail, by phone and in person. Faculties have Student Liaison Units to deal with all of these issues. There is limited provision of the facility of a *One-Stop-Shop*, and one provider has an online guide, *Getting Started*.
Payment of fees	There a number of options for paying fees, including Bpay, using a credit card over the phone or paying in person or by mail. The implementation of e-commerce is limited at this period of time, however information on the process of payment of fees is plentiful.

Help with enrolling	Assistance with enrolling is available by email and over the phone, with one specific program with online assistance. *Getting Started*, having the registration, course application and enrolment details. Another provides information on a one-to-one basis, customised to suit the individual. Enrolment in a number of institutions is the responsibility of the specific faculty.

The 'digital divide' has been highlighted as an equity issue that will detract from the learning process for some, with access to the internet still an issue confronting some providers in isolated areas.

Enrolled student

The literature review indicated that the online provider focused on the technological perspective of the mode for the enrolled student. This is consistent with the view of Carroll and McNickle (2000), Collis (1996), Haley (1999) and Nowak (1998), who have commented that online development is content- and technology-driven and narrowly focused on the design and delivery side of education. Whilst the site visits reaffirmed this, there has been a marked shift to a more holistic approach to support services because they are perceived as being essential for effective learning to take place. Pittman (2000, p 12) affirms this view with: 'What is needed is a comprehensive platform for online education, which includes not only presentation and education but also all the administrative functions required for student progress through the institution'. However, it is the administrative functions that appear to be more difficult to put online. These functions include changing courses, financial status, enrolling, payment and the provision of evidence/documentation for recognition of prior learning.

Another area of challenge for online developers is the provision of personal counselling. Even though many providers have this service available face-to-face and over the phone, for the online student requiring this provision beyond the 9.00 am-5.30 pm timeframe, only a limited number of providers have addressed this issue. Restrictions are plentiful, with privacy and communication issues being paramount. Some of these issues are being addressed in the Learnscope project *Online Counselling Skills* and the TAFE Student Services Online project.

Induction and orientation programs are provided in a number of modes. The viability of these different modes is being contested (Brown 1998; Snewin 1999; Webb and Gibson 2000; Williams et al 1997). Despite the different modes being used, it is nevertheless essential for students to be able to access some form of induction and orientation (James 1999; McNickle 1999).

Academic support, IT support and academic resources are provided in varying depths and modes. Examples include IT Liaison Officers in a range of geographical locations, IT mentors (for some courses), an extensive range of teaching and learning support and strategies to aid students in their transition to independent learning, together with resources that can be downloaded instead of using textbooks. The availability of communication links in a variety of modes and access times are acclaimed as one of the more important mechanisms in the support process. It must be noted at this time that even though these facilities are available, the importance of personal contact needs to be acknowledged (Evans and Deschepper 1998; Snewin 1999; Williams et al 1997).

Most inductions to the subjects are discipline- or faculty-specific, although a number of institutions have general orientation material on the website or paper-based material. Distance education institutions appear to have more depth of information in this area.

Communication has been highlighted as one of the more important issues for supporting online students. This was provided in a variety of forms including: email, chat rooms and bulletin boards. Some institutions have personal portals for each student where they can gain information about their own studies.

Personal counselling is an issue for providers, with privacy and authenticity causing concern. Career counselling is provided in some institutions via the phone, email or face-to-face.

Orientation to online learning	There are a range of orientation packages being utilised, including: • The LITE program, which is a self-paced, credit bearing foundation unit entirely online. This unit assists students with library use, location of resources, research skills, using the web, email, word processing and spreadsheets. • The Academic Orientation Program - available in hardcopy or email sent from the specific faculty. • A variety of Welcome packs for online learning. • Orientation sessions held by the teaching and learning areas. • CDs with information specific to online learning. • Information built into the online courses. In a number of examples, orientation is a faculty-specific responsibility and a number of sites have FAQs specific to *Orientation to Online Learning*.

Induction and orientation to specific course	There is a lot of information online on induction/orientation. There is also a range of web-based resources, with a focus on communication. Some providers have this information included in the course notes, which are also sent in hardcopy. In some examples, induction/orientation is a faculty-based responsibility. Examples online include: *Introduction to Online Learning* and *Welcome to Participate in Networks.* Workshops are also available in-house on Learning Strategies, as part of an Induction program.
Communication links (chatrooms, bulletin boards etc) for possible SS use	A variety of communication links are used, including: • Chat sessions • Inbuilt emails specific to courses • Online student lounge • Bulletin boards • Email • Webboard • Helpdesk • Information line • NTU Talkline.
Administrative services (changing courses, results, late fees etc)	The provision of all administrative services online is limited. One provider has this entire service online, another has a *Personal Profile* for students which provides results, timetables, academic history, exam timetable, internet access and the account balance specific to each student. Some providers allow course changes online and viewing of results, and provide helpdesk. Information is also available to students by email, face-to-face, by phone and by mail. One university has Information Systems and Student Administration centrally located to enhance client service and satisfaction.

Academic support (study skills, time management, information literacy, numeracy, peer support)	Academic support is provided in a number of forms, including: • Chat and bulletin boards • Teaching and learning areas, offering study skills and general support • Specific programs including tUNEup, which provides basic academic skills and is available on CD or paper • Academic support available online • Assistance available by email, face-to-face and by phone • An extensive range of study skills available online (most participating organisations) • Tutorial support available online • Peer support (limited) • Extensive Study Skills resources to cover both higher education and TAFE students • *Introduction to University Learning* – a unit students take if they are having trouble at university. The student drops a unit and picks this one up, which helps them with study skills, is a credit-bearing unit and helps the student stay at university • *Learning Online* - a study skills program offered by one of the providers • A video, *From Life to Learning*, which raises awareness of skills, knowledge and abilities that the student brings from school to university
Counselling (personal)	The majority of sites have information on counselling online. This information varies from contact details to more depth, including the different counselling available etc. In limited institutions, counselling is available over the phone and via email, whereas the majority have facilities for face-to-face counselling quite freely available. One institution provides *Regional Liaison Counselling Officers* in regional areas for their students.
Career counselling	Information is available online and over the phone in most cases, with limited email and formal counselling facilities being available.
Academic resources (library, databases, websites, bookshop etc)	Library facilities vary, with online references, catalogues, links and resources being available to the students in most institutions and mostly on the homepage. These services are generally available to students by phone, fax, mail, email, inter-library loan and online. One library provides links with other sites as part of the network – LEARN, whereas another has an electronic reserve for teaching materials for external students.

	One university subscribes to Ebscohost. These articles are available in complete version and can be downloaded from the site instead of using textbooks. One university is running a program – ITPassport - this is in conjunction with the library that gives the students basic computer literacy training and continues throughout the year. This university has a policy that: *All students will leave the University with generic skills, especially IT and Information Literacy skills.* This same university has a two-day turnaround for requests for resources.
IT support and help line	A variety of strategies are used for IT support, including: • *Getting Started,* which is a guide to the internet • *Help Activities for new users,* which looks at issues that new users are likely to encounter • FAQs • 1800 and 1300 phone numbers • Asynchronous discussion • Student Helpdesk • Helpline • Interactive Voice Response • *Kiosk,* which has an extensive range of student information on admissions, enrolment, faculty contacts/information, admission/enrolment status, financial information, units, courses etc • One university provides support 7 days per week, with a 4-hour response time and technical mentors for some courses
Other student services not discussed above that are provided for online students	Services provided by a number of the contributing institutions include: • Childcare • Support for specific needs • Aboriginal Educational Support Service • Access and Equity • International Student Services • English as a Second Language • Financial Assistance • General Support Services, including accommodation, health services, legal assistance, health

Graduating students

The study found that graduating students have been able to access a varied range of assistance and information on career destinations, job seeking skills, agency links and results. Some institutions offer extensive Graduate Destination information, whilst others provide the opportunity for employers to go to the different faculties to give employment details, assistance and even interviews in some cases. Employment information and assistance is also available online.

Information on career destinations	This information is provided in a variety of forms - online, phone and in hard copy. Most institutions have their Handbook online and a variety of information is available online, including links to employment agencies. One university provides employers with a pack. A number of universities have employers come to the university and give presentations about their positions, and employment details. Sometimes, students are interviewed. Graduates will also accompany their employers sometimes and give an account of their experience. Employers put information on the website, including positions and employment information. This is also available by fax and email. Graduate Destination Survey information is available online, with some providers giving very extensive details - categorised into: • Faculties • Courses • By further study • Employment • Age/salary
Job search skills	A number of websites have information online, some having links to employment agencies and links to other appropriate sites. Workshops are also advertised online. This material is sometimes presented as a separate module or included as part of courses.
Resume development	A number of websites have information online, some having links to employment agencies and links to other appropriate sites. Workshops are also advertised online.
Interview tips	This material is sometimes available as a module or as a workshop, which is advertised online. A number of providers have specific information available online, with links to agencies.

Agency links (to industries, career sites, employment sites etc)	Information is accessible online by a number of providers. Many also have links to industry, job agencies (Drake and Dunhill), employment sites, the Australian Jobs Board and other brokers etc. A number of universities have employers come to the university and give presentations of their positions and employment details. Sometimes they interview students.
Results and transcripts	The majority of providers have results available online and to a lesser extent by phone, or in hardcopy. Transcripts are available in hardcopy.

Any other information

Teaching, learning and developmental issues	This section will include some points regarding teaching and learning and online development of resources etc that are not included above. • Online resources to support learning and aid access to learning • The provision of seamless student services to all TAFE students irrespective of delivery mode • Students in WebCT - online access to global WebCT support and services • A showcase of teaching strategies for online delivery to be made available in October • Central TAFE body - hosting the provision and development of online learning • Integration of higher education and TAFE, with some teachers/lecturers teaching both sectors – the articulation process being utilised within the one institution from TAFE courses through the higher education sector. • Presentation of online resources: o A series of web pages available on web design o Download time - an important consideration for students learning online o Short pages - more reader friendly o Presentation of voice track and slides available o Personalised contact with teachers used extensively in the form of chatrooms and email o Careers information - available online within the next 3 weeks, including a virtual careers fair and range of links to sites, from applications to interviews and hotlinks

	• The use of learning strategies to aid learning.
	• The main services online students need:
	  o Administration
	  o User name and password
	  o Access on the web with general set up of browser, ISP and access issues
	  o Networks and error messages
	  o How to use chatboards, discussion boards.
	  o Access to IT support and general services
	• Students need adequate, up-to-date information and need to be stepped through every process on a basic concrete level
	• Sites need to be easy to navigate
	• So much emphasis has been on the product; now it is time to look at other components in the class room – we need to be proactive
	• For online learners to be effective, they need:
	  o Motivation
	  o Research skills
	  o The ability to work with information given to them and to be able to understand and interpret this information effectively
	It is important that communication and activities are built into the resources. Communication builds a sense of community and gives the students a sense of ownership of that channel
	Students having difficulties are usually identified within five weeks by their tutors.
	Much of the online courses around the world are for postgraduate students who have independent learning skills
	www.bobby.com - a site that evaluates the accessibility of other sites.

Innovative practices:

Other examples of innovative practice to aid the online learner include:

- One provider presents career advice in sections for undergraduates, postgraduates and for international students.
- The LITE program, which is a self-paced, credit bearing foundation unit that is entirely online. This unit assists students with library use, location of resources, research skills, using the web, email, word processing and spreadsheets

- Graduate Destination Survey information is available online, with extensive details being categorised into:
    - Faculties
    - Courses
    - By further study
    - Employment
    - Age Salary.

Personnel associated with all sites included in this study made it quite clear that they are still grappling with many facets of the transition to online delivery and the provision of support services in this innovative environment. However, their willingness to share their experiences has made the study more viable and worthwhile.

Provider approaches tend to be quite individualistic, often reflecting the needs of their particular client groups. But they all have something to offer as an example of innovative practice to their educational counterparts. Both sectors in the study - VET and higher education - recognise that a holistic approach is essential in the provision of support services.

References

Carroll T and McNickle C (2000) On-line student services (Strategy 2000 - Project 3/12.1). Project Executive Plan. Canberra, Project consortium: CIT; WestOne; TAFE Tasmania; Office of Vocational Education and Training.

Collis B (1996) Does more technology mean more choice for the learner? Experiences from the TeleScopia Project. Vocational Training: European Journal, NR7, Jan-April, pp 12-19.

Evans A and Deschepper A (1998) Learner support in an online environment. Open Learning 1998 - Proceedings of the third International Conference in Open Learning, 2-4 December.

Haley J (1999) Online training: where is it at? Who is offering it? Does it really work? The Australian TAFE Teacher, vol 33, no 1, p 14.

James T (1999) Student readiness to learn via the Internet. Second conference of the Australian VET Research Association - Quality and Diversity in VET Research, Royal Melbourne Institute of Technology.

Nowak S (1998) Effective on-line delivery. Open Learning '98 - third International Open Learning Conference, Brisbane.

Pittman L (2000) Keeping quality in the picture. Campus Review, March 1-7, p 12.

Snewin D (1999) Internet delivery for VET sector students at UniSA. Quality and diversity in VET research - second Australian VET Research Association Conference, Melbourne, Royal Melbourne Institute of Technology.

Webb G and Gibson J (2000) Three years down the track: what has worked; what hasn't - a review of a 100% online delivery program in TAFE NSW. Future Research, Research Futures - the third Annual Conference of the Australian Vocational Education and Training Research Association (AVETRA), Canberra, ACT, 23-24 March.

Williams G and Lord B, et al (1997) Enhancing student learning through online support. Fascilite 97, Curtin University.

Contact details

Cathy McNickle
CURVE
Canberra Institute of Technology
GPO Box 826, Canberra
Australian Capital Territory 2601
Ph: +61 2 6207 4983
Email: cathy.mcknickle@cit.act.edu.au

Destinations of school leavers who participated in structured workplace learning programs

Josie Misko

National Centre for Vocational Education Research, Adelaide

(in conjunction with the Enterprise and Career Education Foundation)

This paper reports the destinations of school leavers who participated in structured workplace learning (SWL) programs funded by the Enterprise and Career Education Foundation (ECEF) - formerly the Australian Student Traineeship Foundation.

Background

There has been a concerted effort to provide school students (especially in the senior years) with vocational education and training (VET). SWL provides options for all students to attain enterprise skills and entry-level qualifications which will help them with career options, employment or industry-specific accreditation towards further study.

VET in Schools programs have also been introduced as a means of providing incentives for students, who may be at risk of leaving school early, to stay on at school and complete their secondary schooling. This is because year 12 non-completers have been found to be especially disadvantaged in the labour market. They often spend more time in unemployment than year 12 completers for the same amount of time out of school. Although the unemployment rate declines for both groups the longer they spend in the labour market, it tends to decline more quickly for year 12 completers in the second year out of school (DEETYA 1997).

Students in ECEF-funded programs

The ECEF was established by a grant from the Commonwealth Government to promote opportunities for young Australians to acquire workplace knowledge and experience before they graduate from school.

McIntyre and Pithers (2001) have traced the growth of these programs. Their data shows that there has been an explosion in the number of students in ECEF-supported programs in every State and Territory since 1995. In 1995 there were 2800 students in such programs nationwide and by 2000 this had increased to just over 80 000. McIntyre and Pithers forecast that by 2001 there will be just over 100 000 students in these programs.

Structured workplace learning

Structured workplace learning (SWL) programs comprise on-the-job and off-the-job training components. The on-the-job components, which include pre-determined learning outcomes agreed prior to the work placements, are delivered in workplaces by employers or their representatives. The off-the-job components are delivered in the classroom, either by school teachers who have the necessary experience and qualifications to deliver the training, or teachers from TAFE institutes or other registered training organisations.

SWL programs typically involve a cluster of schools coming together to provide SWL experiences for their students. These clusters are generally managed by committees of local stakeholders including employers, schools, training providers and community organisations. In some cases student representatives are also on cluster management committees. The day-to-day operations of the cluster are usually conducted by a program coordinator who has generally been hired to coordinate the activities of the cluster and liaise with students, their teachers and employers. The main role of the coordinator, however, is to locate and negotiate work placements for students, assist employers to prepare for these placements, and maintain networks with employers and community organisations, for the location of further placements.

In 2000 the ECEF supported about 250 SWL programs. Because of the school cluster approach to organisation, this meant that there were almost 2000 schools across Australia involved in providing SWL opportunities for students.

The main focus of SWL in these programs is the work placement. Students participate in work placements for a period of between 5-20 days in the final years of their schooling. However, the duration of work placements also depends on local program arrangements, and requirements laid down by Boards of Studies or their equivalents in the different States and Territories.

The benefits of SWL

Lamb et al (1998) and Misko (1998) have examined the employment outcomes of students in VET in Schools programs. Their findings indicate that considerable numbers of young people participating in SWL are often offered part-time or full-time employment, including apprenticeships and traineeships, as a result of being involved in work placements. Misko (1995) found that employers were keen to be involved in providing placements for students because they saw this as a means to improving their public image, fulfilling their community responsibility and recruiting suitable employees. Teachers have also reported an improved and more committed attitude to their general schoolwork from many of the students involved in SWL.

In addition, students generally enjoy the opportunity to develop workplace skills, mix with other workers, and find out whether they are suited to the particular industry or occupation (Misko 1998; Teese et al 1997). Another key benefit for students are the opportunities for them to gain industry-recognised qualifications within the Australian Recognition Framework, which can be used to articulate into further training.

Feedback from parents with a SWL connection has also been positive about the benefits to students. The National Centre for Vocational Education Research (NCVER) 2000 Parent Perceptions of School-Industry Programs research commissioned by the ECEF indicates that more than 80% of parents with experience of SWL programs would recommend such programs to other parents (Misko et al 1998).

About the study

One way to determine whether or not VET in Schools programs, and in particular SWL programs have been successful, is to examine whether or not they have led to employment or encouraged students to stay on at school. This study was based on a questionnaire survey of students who left school in 1999 and had participated in SWL programs in years 11 and 12. Exit students were contacted by ECEF-funded coordinators in March 2000, either working independently or in conjunction with teachers from schools.

Students were required to provide details about their participation in SWL programs, current employment and/or further studies, and whether their SWL programs which included a work placement had helped them to find their current jobs.

Respondents

A total of 8249 school leavers who left school in 1999 and had been involved in ECEF-funded SWL program(s) in years 11 or 12 (either in 1998 or 1999) responded to the survey. The sample represents approximately 15% of the 1999 school leavers who had participated in ECEF-funded programs. There were slightly more females (52.3%) than males (47.7%).

Over nine in ten (92.4%) students had attended a coeducational school. A small percentage (5.2%) had attended all-female schools and almost half this proportion (2.4%) had attended all-male schools.

The overwhelming majority (80.8%) of respondents had undertaken year 12 in 1999. Just under a fifth (17.8%) had undertaken year 11, and a minimal percentage (0.6%) had been involved in year 13.

SWL industry programs

A total of 24 different industry-related SWL programs were identified. Of these, the ten most popular programs are presented in Table 1. For about 20% of respondents the industry sector was not identified.

In Table 1 and in all other tables dealing with industry sectors, the analysis is based on the first SWL program identified by respondents. This is because in the majority of cases this represents the major part of the involvement.

Table 5: Student participation in SWL industry programs

	No. of students in programs	% of students
Hospitality	1949	23.6
Office/finance/banking and insurance	887	10.8
Retail/wholesale	600	7.3
Building and construction	496	6.0
Community services and health	452	5.4
IT, printing and communication	408	4.9
Metals and engineering	397	4.8
Automotive	390	4.7
Primary industries	319	3.9
Light manufacturing	209	2.5
Tourism	186	2.3
Fitness, sport and recreation	133	1.6
Arts and entertainment	99	1.2
Food processing	31	0.4
Marine	31	0.4
Utilities	29	0.4
Process manufacturing	13	0.2
Miscellaneous industry sectors (furnishings, public administration, property services, mining)	13	0.2
Electronics	9	0.1
Transport and distribution	9	0.1
Industry not specified	1589	19.3
Total	**8249**	**100.0**

Employment and further studies outcomes of SWL participants (March 2000)

At the time of the survey, one in ten respondents were in part-time work only. Just over 40% were in full-time employment and just over a third were in full-time studies. About 7% of the total group had registered as unemployed and about 2% were not actively seeking work. About the same percentage were engaged in a combination of part-time studies with other activities. These data are reported in Table 2.

Table 2: Employment and further training destinations of school leavers who had participated in SWL programs

	Destinations	**No. of students**	**% of total**
Part-time work	Part-time work only	842	
	Part-time work and deferred studies	58	
	Subtotal	902	10.9
Full-time work combinations	Full-time work	3169	
	Full-time work and part-time study	281	
	Full-time work and deferred studies	68	
	Subtotal	3318	40.2
Full-time study combinations	Full-time study only	2095	
	Full-time study and part-time work	753	
	Repeating year 12/ undertaking year 13	139	
	Subtotal	2987	36.2
Other study combinations	Repeating year 12/undertaking year 13 and part-time work	21	
	Part-time work and part-time study	173	
	Part-time study only	86	
	Subtotal	280	3.4
Unemployed	Registered as unemployed (no part-time work)	549	
	Registered as unemployed and part-time studies	29	
	Registered as unemployed and deferred studies	25	
	Registered as unemployed and part-time work	2	
	Subtotal	605	7.3
Not actively seeking work	Not registered as unemployed but not seeking work	118	
	Not registered as unemployed, not seeking work, and deferred studies	11	
	Not registered as unemployed, not seeking work, and in part-time studies	3	
	Deferred studies and not in work	27	
	Subtotal	159	1.9
	Grand total	8249	100.0

1999 grade levels

The March 2000 destinations of SWL participants indicate that the majority of respondents who had undertaken years 12 and 13 (40.9%, 46.3% respectively) in 1999 were slightly more likely to be in full-time work than those who had undertaken year 11 (37.4%). Year 11 school leavers were more likely to be in full-time studies (42.5%) than respondents in the other two groups. Unemployment levels for both years 11 and 12 school leavers were similar (7.1%, 7.4% respectively). In addition, there were very few (3.0, n=2) year 13 school leavers in unemployment.

Gender

About a tenth of all males and females were engaged in part-time work. However, where almost a half of the males (49.0%) were in full-time work or a combination of full-time work with other activities, just under a third (32.7%) of the females were so engaged. A similar proportion of males and females were registered as unemployed (7.7%, 7.0% respectively), or as not actively seeking work (1.5%, 2.3% respectively). However a greater proportion of the female respondents were in full-time studies than were males (42.1%, 29.8% respectively).

Senior certificate completers

There were 67.6% of respondents who had completed their senior secondary certificates. Of these, just over half (55.6%) were female, 44.2% were male and a small group did not state their gender.

There was virtually no difference in the profile of students who had or had not completed their senior certificate, including the proportion registered as unemployed (7.3% for both groups). Those who had not completed their senior certificate were slightly more likely to progress to full-time study than those who had completed their certificates (39.2%, 34.9% respectively) and slightly more likely to be in work (40.4%, 40.2% respectively).

SWL program participation

It is important to consider the success of SWL programs in generating work outcomes. The findings of this study indicate that greater percentages of respondents who have undertaken SWL programs in traditional trades like metals and engineering, light manufacturing, building and construction and primary industries, obtain full-time employment at higher rates than students undertaking other SWL programs. However, just over a quarter of the students who had undertaken SWL programs in all other programs were also obtaining full-time employment.

The proportion of the sample reporting as registered as unemployed was fairly similar for the great majority of respondents. The major differences were to be found for programs in community services and health, where the rate was 13.5%, and the programs for tourism, where unemployment was considerably lower at 4.3%. SWL participants not 'actively seeking work' were minimal for the great majority of programs. SWL participants in light manufacturing, metals and engineering and arts and entertainment reported the highest figures for this group. The two areas most likely to lead on to full-time study were IT (54.7%) and tourism (53.2%). These details are provided in Table 3.

Table 3: March 2000 destinations of respondents according to participation in SWL industry programs (%)

SWL program (industry sector)	Part-time work	Full-time work	Registered as unemployed	Not actively seeking work	Full-time studies	Other study combinations	Totals
Hospitality	14.6	36.5	6.8	2.1	35.7	4.3	100.0 n=1949
Office/finance/ banking/ insurance	10.0	42.4	7.7	2.9	33.4	3.6	100.0 n=887
Retail/wholesale	12.3	34.8	7.7	3.0	41.2	1.0	100.0 n=600
Building and construction	8.7	65.7	6.6	.6	16.7	1.4	100.0 n=496
Community services/health	13.1	26.5	13.5	2.2	41.2	3.3	100.0 n=497
Metals engineering	6.8	57.9	9.0	1.3	22.9	2.3	100.0 n=497
IT/ printing/ communication	6.3	26.2	7.4	1.7	54.7	3.7	100.0 n=408
Automotive	9.0	60.8	6.2	.4	22.1	1.5	100.0 n=390
Primary industries	11.3	41.2	0.0	3.5	33.3	10.7	100.0 n=318
Light manufacturing	11.1	52.9	9.1	1.4	23.1	2.9	100.0 n=209
Tourism	11.8	24.6	4.3	1.1	53.2	4.8	100.0 n=186
Fitness sport and recreation	14.3	35.3	7.5	1.5	36.1	5.3	100.0 n=133
Arts and entertainment	9.1	32.3	7.1	9.1	40.4	2.0	100.0 n=99 100.0

Comparisons with ABS statistics

The Australian Bureau of Statistics (ABS Labour Force Australia 6203.0) reports that the proportion of 15-19 year olds who left school and were in full-time work in March 2000 was 32.2%. The proportion in part-time work (and not in full-time study) was 12.5%. The proportion attending full-time tertiary study was 39.1%. However, for participants in our sample, the proportion in full-time work was 40.2%; part-time work - 10.9%; and full-time study - 36.2%.

The Australian Bureau of Statistics indicates that at March 2000, there was an unemployment rate of 16.8% for the proportion of 15-19 year olds attending neither school nor a tertiary educational institution full-time.

For comparison purposes for our study, the unemployment rate in Table 6 needs to be calculated for those employed in full or part-time work or looking for work. On this basis, the SWL leavers unemployment rate is 12.1%.

Finding jobs in industry

Employed respondents were asked to indicate their occupations, the types of jobs they were involved in and their place of employment. A total of about 27 different industry areas were identified. The largest specified industry group, accounting for just over 15% of the total group of respondents, was the retail/wholesale industry. The next largest group was the hospitality industry, which accounted for about 11% of the respondents.

Almost a third (29.6%) of all workers were in the retail/wholesale industry and just over a fifth (22.1%) were in the hospitality industry. For the other industries the number of workers drops down dramatically.

Finding employment in SWL industry sectors

Although this it is just one of the benefits of SWL program participation, it is also important to consider whether this participation leads on to occupations in the same areas. The findings indicate that whether students obtain employment in the SWL industry sectors varies according to the SWL program involved. Of the students who had undertaken at least one SWL program, there were 1971 students who reported they had found jobs in the same industry sectors. For the more popular SWL programs (over 99 participants), the best outcomes in terms of SWL program and industry match were for students who had undertaken SWL programs in building and construction, automotive, retail/wholesale, and utilities. Successful SWL program/industry employment matches ranged from about 30% for participants in SWL programs in the utilities sector, to just over 40% for participants in SWL programs for the building and construction sector.

Almost a third of those who had undertaken SWL programs in hospitality, marine, metals and engineering, office/finance/banking/insurance, and primary industries, chose or found jobs in these industry sectors in 2000. About a fifth of those who had undertaken programs in light manufacturing, food processing, transport and distribution, community services and health chose or found employment in these areas.

About a tenth of the SWL participants in information technology/printing and communication, fitness sport and recreation, electronics, tourism, arts and entertainment had been able to find jobs in these industry sectors.

This analysis in terms of the numbers of respondents in full-time or part-time work reveals that the following proportions of SWL participants had been able to find jobs in the same industry sectors:

- almost nine in ten participants in retail/wholesale

- almost two-thirds of participants in building and construction and hospitality
- about half of participants in primary industries, automotive, office, finance, banking and insurance, metals and engineering, and community services and health
- well over a third of participants in light manufacturing, and information technology, printing and communication
- over a quarter of participants in tourism, fitness, sport and recreation and arts and entertainment.

About a third (36.4%) of the respondents and almost a half (46.3%) of those in full-time and part-time work reported finding jobs in industries other than those in which they had undertaken SWL programs.

Obtaining a job with work placement employer

About 10% of respondents reported that they had obtained a job with their work placement employer. This represents 21.4% of those respondents whose major activity was part-time or full-time work.

In the more popular industry programs (undertaken by 99 respondents or over), the industries more likely to keep on students as full-time employees after their work placements were building and construction, metals and engineering, and automotive and tourism.

The proportion of those who were kept on by work placement employers rises dramatically when only the numbers of those in full-time and part-time work are taken into account. It ranges from 9.0% for employers in the fitness, sport and recreation industry to just over 35% for those in the tourism industry. For eight of the industry areas with 99 respondents or over, the percentage of those who have been kept on by their employers ranges from just over 22% to just over 35%.

Utility of work placements for further employment

One in ten (10.1%) respondents had undertaken a work placement with their current employer. Of these, just over three-quarters (79.2%) believed that the work placement they had done in their year 11, 12 or 13 program at secondary school had helped them to get the job. Just over a fifth (20.8%), however, did not believe that the placement had helped them to get the job.

However, 43.8% of all respondents who were in some form of full-time or part-time work combinations replied that their work placements had helped them to find a job. In addition, 58.2% of those in apprenticeships and just 53% of those in traineeships believed that their work placement had helped them to get their current jobs.

Moving to other areas for employment

Nearly a fifth (16.4%) of those who reported being in part-time work or full-time work reported having left their local area to find a job.

Apprenticeships and traineeships

There were 13.7% of school leavers who had gone into apprenticeships, and 9.9% who had gone into traineeships.

Grade level background of apprentices and trainees

A greater percentage of apprentices were respondents who had completed year 11 in 1999. However, the greatest percentage of trainees had completed year 12 in 1999. In addition there were more 1999 year 11 and 12 respondents who were in apprenticeships than traineeships. The situation was reversed for students who had completed year 13.

SWL program participation of apprentices and trainees

Well over a third of the participants in the major SWL programs (ie automotive, building and construction, and metals and engineering), were in apprenticeships at the time of the study, with over a half of those who had taken programs in building and construction reporting an apprenticeship. About a tenth of the participants in SWL programs in retail/wholesale, community services and health and information technology/printing and communication were in traineeships. However, almost a fifth of participants in office/finance/banking and insurance programs were in traineeships.

Well over a third (42.5%) of trainees and just over half (53.7%) of apprentices were working in the industry areas related to their SWL programs.

Credit transfer or advanced standing

There were 28.4% of apprentices and 19.1% of trainees who had received advanced standing or credit transfer for their SWL programs. However, apprentices who had participated in SWL programs in automotive, building and construction, hospitality, metals and engineering, and primary industries were far more likely to receive advanced standing in their apprenticeship training than apprentices participating in other SWL programs. Trainees were more likely to receive advanced standing if they had studied SWL programs in information technology, printing and communication, office, banking and insurance, automotive industries and metals and engineering.

A greater percentage of apprentices who had participated in SWL programs in automotive, building and construction, hospitality, metals and engineering, and primary industries - and who had obtained employment in the same sector - received advanced standing than apprentices in most industries. However, the great majority of apprentices and trainees did not receive any advanced standing for SWL programs undertaken in secondary school.

Training institutions

Over two-thirds (66.5%) of those who reported being engaged in further studies (n=3580) had gone into VET institutions and about a quarter (25.4%) had gone on to university. There was a small group that had returned to high schools or secondary colleges either to repeat year 12 or undertake year 13.

About a fifth (21.4%) of the respondents who had gone on to further studies after their SWL programs reported having been awarded credit transfer or advanced standing. However, over a third (39.3%) of those who had gone into a course related to their SWL program reported that credit transfer had been awarded.

Discussion and conclusions

This study has examined the post-school destinations of students participating in SWL programs in their final years of schooling. Only a small percentage of SWL participants were registered as unemployed, which is below national levels generally. The findings also indicate that a substantial group (over 40%) of SWL participants are also gaining full-time employment. In addition, over 38% are continuing on to further and full-time studies.

The connection between SWL and destinations

It is always difficult to make direct connections between participation in training and successful employment or other outcomes. However, these are optimistic findings. They support the importance of SWL for preparing students for the world of work. Students do not always choose or obtain jobs in the industry sector related to their SWL programs, however, they may use the experience to choose and gain employment in other industry sectors. In addition, the extensive range of programs makes it possible for students to have a substantial choice in the careers or industries they would like to pursue. This study does not capture the reasons why students choose employment in other industry sectors. However, findings may indicate that students have developed generic workplace skills which have led to jobs in other areas.

The fact that the substantial groups of respondents indicated that work placements had helped them to obtain jobs supports the benefit to students and employers of having students in workplaces.

For some industry sectors there seems to be a tighter connection between SWL program participation and eventual employment in the industry. For example, about half of the SWL participants in the building and construction area managed to get employment in this industry sector. If we take these as a percentage of those who went into full-time and part-time work, then this figure is close to two-thirds of the participants. Tight connections are also found for the retail/wholesale area. Here, almost 90% of those who found work in the retail/wholesale industry had participated in SWL programs in the same industry sector. The connections are not as strong for most of the other major programs.

A diversity of offerings

The study has highlighted the wide variety of industry programs that are available. Such a diversity of offerings provides a great deal of opportunity for students to experience the different industries and to change their minds if they do not enjoy a particular area.

Encouraging results

Apart from the success of SWL participants in finding employment or continuing with further training, the figures are encouraging for specific groups of SWL program participants in terms of finding jobs in the same industry sectors. In SWL programs like building and construction, retail/wholesale, hospitality, automotive, utilities, primary industries, marine and metals and engineering, and office/finance/banking and insurance, substantial percentages of students chose or gained jobs in the same areas in which they had undertaken SWL training. In addition, a substantial proportion were able to enter new apprenticeships. In less popular programs like property services, where only two students undertook SWL programs, both students obtained a job in the same area. This information is a valuable tool for students when making their course selections and when considering career options.

In addition, there were low proportions of respondents who were registered as unemployed or who were not actively seeking work. This means that SWL participants are either going into full-time or part-time work or into full or part-time studies. These are positive findings and indicate that SWL participants are still engaged with the labour force or with the training sector.

Credit transfer and advanced standing

About a third of students who went on to VET programs at TAFE or other VET providers or their equivalents received credit for their SWL courses. This also augurs well for the continuation of these programs. If students know that their prior learning in SWL programs will be counted towards further qualifications, then it adds further motivation for students to take these programs seriously.

It remains a matter of concern, however, that the great majority of students, whether they go on to study in similar areas at universities or in VET institutions, are not receiving recognition for the studies they have already completed. There may be a number of reasons for students not obtaining advanced standing. One reason may relate to communication problems between the training providers, which may lead to a lack of understanding of what actual learning has preceded requests for credit transfer. Another reason for credit transfer or advanced standing not being widespread may be that apprentices, trainees and other students are not aware that they can make a request for advanced standing and this lack of knowledge may explain the limited take-up of credit transfer opportunities. Furthermore, apprentices, trainees and other students may not make requests for credit transfer or advanced standing because they may prefer to start afresh in their new programs.

Should lack of adequate information for both parties be the major barrier to accessing credit transfer or advanced standing, then information which clarifies the availability to students of credit transfer and advanced standing, and information which clarifies program content for RTOs, needs to be more widely distributed.

Limitations of the study

This study has examined employment and further training outcomes of students who had participated in SWL programs during their final years of schooling, and who responded to a pilot survey. This information has been provided by students completing a questionnaire and having this forwarded to the ECEF via coordinators or teachers. The findings need to be considered in this light. It could be that only students with successful outcomes have participated in the survey, and this may have contributed to some of the favourable results.

Concluding remarks

The findings of this study indicate that the great majority of students who have participated in SWL programs are obtaining employment or going into further studies. This augurs well for the continuation of such programs. However, we must be careful not to automatically conclude that these employment and further training outcomes are directly caused by participation in SWL programs. It may be that the more enterprising students also see the advantages of undertaking SWL programs, and because of these specific attributes, are also reaping the rewards.

References

Lamb S, Long M and Malley J (1998) Vocational education and training in Australia: An analysis of participation and outcomes using longitudinal survey data. Melbourne: ACER.

McIntyre J and Pithers B (2001) Workplacements 2000: a review of structured workplacements of students studying vocational education and training in schools, supported by programs funded by the Australian Student Traineeship Foundation (ECEF). UTS: Research Centre for Vocational Education and Training, Sydney. http//www.ecef.com.au.

Misko J (1998) School students in workplaces: what are the benefits. Adelaide: National Centre for Vocational Education Research.

Misko J, Campbell A and Saunders J (1998) Parent perceptions of school industry programs. Report prepared for the Australian Student Traineeship Foundation.

Teese R, Davies M and Ryan C (1997) Workplacement experience: the student perspective. Australian National Training Authority, Education Outcomes Research Unit, The University of Melbourne.

Contact details

Josie Misko
National Centre for Vocational Education Research
252 Kensington Road, Leabrook
South Australia 5068
Email: misko@ncver.edu.au

The challenges in developing VET competencies in e-commerce

John Mitchell

Managing Director, John Mitchell and Associates

Background

E-commerce is an important national issue, as it may provide some of the overarching set of business principles and practices needed to drive Australia in the global, networked economy. The training needs for e-commerce may become extensive, so it is imperative that competencies developed for e-commerce are valid for industry and acceptable to clients.

This paper reports on the evaluation in 2000-2001 of an innovative project funded by the Australian National Training Authority (ANTA) to develop competencies and qualifications in e-commerce. The ANTA E-commerce Initiative project is a response to *E-competent Australia* (Mitchell 2000), which argued that it was both possible and important to identify competencies in e-commerce. *E-competent Australia* also noted the huge demand for VET courses in e-commerce and the need to design competencies carefully.

Two industry training advisory boards (ITABs) - the information technology and telecommunications (IT&T) ITAB and the business services (BST) ITAB - were commissioned in 2000 to develop approximately 100 competencies in e-commerce. A further four ITABs will commence the development of around 30 competencies in mid-2001. A project manager external to ANTA was appointed to oversee the project.

The evaluation of the ANTA E-commerce Initiative Project commenced in September 2000 and will conclude in early October 2001. This interim report on the evaluation highlights the complexities faced by VET course designers working on the leading edge.

The author is undertaking a Doctorate in Education in the Department of Education at Deakin University (having commenced in 1997), focusing on e-commerce in the VET sector, particularly in relation to flexible and online delivery. The author brings his learning from this earlier research into e-commerce to this evaluation.

Methodologies for the formative evaluation

The purpose of the evaluation of the ANTA E-commerce Initiative is to assess both the efficiency and effectiveness of the project. The formative evaluation focuses on inputs, processes and interim outputs, identifying both good practice and areas for improvement. The summative evaluation will clarify how effectively the project's outcomes achieve the project's stated objectives. This framework of efficiency and effectiveness is a modification of one proposed by the Department of Finance (1994).

The formative evaluation of the project measures the *efficiency* of the project, and the summative evaluation measures the *effectiveness* of the project. The formative evaluation is concerned with:

- the inputs, such as the resources used in the project (eg the staff supporting the project);
- the processes (activities, strategies, operations) by which competencies are developed (taking into account the particular contexts for each Training Package developer, eg the internal evaluation strategies used by the two ITABs); and
- the outputs, ie the deliverables provided by the project (eg the number of competencies developed) over which the developers have direct control.

Efficiency is about improving processes and doing it better. Formative evaluations of efficiency are undertaken regularly during the project, to determine how inputs, processes and outputs may be improved. The formative evaluation provides an opportunity to share best practices, and these lessons are discussed with the Project Manager and each ITAB, particularly at regular workshops held with the ITABs.

Table 1 relates the methodologies used in the formative evaluation of the objectives.

Table 1: Objectives and methodologies for formative evaluation

Description of evaluation of efficiency	• Evaluation of the project conduction
Objectives of evaluation of efficiency	1. To make recommendations about improvements to the conduct of the projects 2. To provide early warning advice on aspects of the project that may emerge as problem areas 3. To provide ongoing analysis, identifying significant issues that promote or inhibit the success of the project
Focus of evaluators' attention (inputs, processes, outputs)	1. Project resourcing 2. Project documentation 3. Project activities, strategies, operations

Qualitative methodologies	1. Routine monitoring of inputs, processes and outputs 2. SWOT analysis of individual training package developer project 3. Case studies of field tests. 4. Interviews with key stakeholders
Quantitative methodologies	1. Analysis of documentation of actual numbers of competencies and qualifications developed 2. Questionnaire (for stakeholders)
Audiences	• Training Package developers • Project Manager • Steering Committee • Expert Steering Committee • Other ITABs

Methodologies for the summative evaluation

Evaluations of effectiveness are also called summative evaluations. Effectiveness is defined as the extent to which a program's expected and unexpected outcomes achieve its stated objectives. Evaluating effectiveness is about accountability: it is about the setting of objectives, producing and reporting on outcomes, and the consequences of getting things right or wrong.

The objectives of the ANTA E-commerce Initiative project are to extend the endorsed and support materials of existing Training Packages with new and enhanced competency standards and qualifications for e-commerce as part of the ANTA e-commerce initiative for the National Training Framework. Together with a minor enhancement proposal for modifications to the current standards and qualifications, the outcomes of this project will provide a contemporary range of competency standards and qualifications for application in industry. Working to the E-commerce Project Manager, for each ITAB, this will involve endorsed components and support materials.

Endorsed components

- drafting and validating new and revised competency standards for inclusion in Training Packages that fit with existing assessment guidelines;
- packaging and aligning the new and revised competency standards into new e-commerce qualifications that fit with existing assessment guidelines; and
- revising existing Training Packages to include the e-commerce standards and qualifications.

Support materials

- identifying available learning resources that would support delivery of the endorsed components;
- developing validated support materials for learners, facilitators and RTOs that effectively contribute to learning and assessment processes; and
- in the case of the IT&T ITAB, revising existing materials (Resources Data Base, Case Study Maker, Traineeship Generators and Professional Development products) to incorporate the e-commerce standards and qualifications.

Table 2 relates the methodologies used in the summative evaluation of the project objectives.

Table 2: Objective and methodologies for summative evaluation

Description of evaluation of effectiveness	**Objective to be evaluated**	**Qualitative methodologies**	**Quantitative methodologies**
Evaluation of the outcomes of the sub-projects	To extend the endorsed and support materials of existing Training Packages with new and enhanced competency standards and qualifications for e-commerce as part of the ANTA E-Commerce Initiative for the National Training Framework.	1. Case studies 2. Observations 3. Interviews	1. Review of numbers of competencies 2. Review of numbers of qualifications

The results of the summative evaluation of the ANTA E-commerce Initiative will inform a second 12 months of the Initiative, if a second stage is funded.

Findings

This section reports on the general findings from the evaluation for the period September 2000 to March 2001. The section demonstrates that the major challenge to developers of competencies in e-commerce is that the field of e-commerce is changing rapidly.

Changing business models

Business models involving e-commerce changed during 2000, producing many challenges for developers of e-commerce competencies. Changes to business models were affected by developments such as:

- In April-March 2000, the sharp fall in the stockmarket value of many companies that solely used online technologies: the 'dotcoms'.
- The rise in the popularity of business-to-business e-commerce, particularly trade exchanges, epitomised in Australia by the CorProcure group of 14 different companies (AMP, ANZ, Australia Post, Amcor, BHP, Coca-Cola Amatil, ColesMyer, Fosters, Goodman Fielder, Orica, Pacific Dunlop, Qantas, Telstra and Westpac).
- The emergence of new business models during 2000, such as ColesMyer's ColesOnline, which is integrating bricks and mortar business with its online operations. (In the final week of November 2000, four of the top five retailing web sites in Australia were owned by conventional department store retailers - Myers, Kmart and Target (owned by ColesMyer) and David Jones were the first, third, fourth and fifth most popular sites. The second most popular site, dstore, is now owned by retailer Harris Scarfe.
- Changes to the business models of companies such as Wine Planet that was previously only a dotcom operation. Wine Planet is now developing conventional retail outlets.
- The reduction in value in late 2000 of some prominent dotcoms that survived the March-April 2000 sharemarket fall, but experienced difficulty in late 2000, such as the online share trading company Etrade and the world's largest portal Yahoo!
- Mergers between dotcoms and conventional businesses, eg Harris Scarfe's purchase of dstore and Woolworths' acquisition of shares in Greengrocer.com.
- Mergers between former rivals in the dotcom domain, in areas such as online auctions.
- The surge in the number of educational organisations, mostly in the USA, that only operate with a web interface with the student.
- The rise of mobile telecommunication technology, such as text messaging via mobile phones, that shows that e-commerce does not always require computer networks.

An interesting story to emerge from the 'dotbomb' year 2000 is the success of online auction site e-Bay. In the third quarter of 2000 alone, e-Bay hosted 68.5 million auctions, facilitating the exchange of $US1.4 billion in merchandise (*Sydney Morning Herald*, Jan 2001). Its business model avoids two of the flaws of other dotcoms: it does not rely on banner ads for revenue (Yahoo's problem) and it does not need to warehouse goods (Amazon.com's problem). EBay's business model works: it is an online exchange connecting buyers and sellers and collects a fee for each transaction (*Sydney Morning Herald*, Jan 2001).

Ongoing debates about the nature of E-commerce

As of March 2001, there are ongoing debates about a number of key aspects of e-commerce, increasing the difficulty of developing competencies in e-commerce, namely:

- whether the distinction between 'old' and 'new economy' is valid or worthwhile;
- whether e-commerce will worsen the 'digital divide': the gap between those who use online communication and those who don't;
- whether business-to-business networks will have negative effects on small providers;
- whether all business-to-business networks will deliver the benefits sought by their owners (Forrester Research predicted in August 2000 that of the 1,000 online marketplaces in the USA, fewer than 2000 will exist in 2003 - see *BRW* 15 Dec 2000);
- whether dotcoms will be able to overcome an apparent weakness in 'fulfilment' of online orders;
- whether the security and privacy issues will be solved and users will be convinced that they can safely provide their credit card details to online companies;
- whether vertical business-to-business networks that link together companies in one specific industry are more likely to succeed than horizontal networks that link disparate organisations from many industries.

These ongoing debates will ensure that the definition of e-commerce will continue to be challenged.

Continual development of new technologies

E-commerce will change in 2001 due to the implementation of new versions of previous technology and the availability of wholly new technologies, which means that new competencies in e-commerce will continue to be needed. For example, a report in the *Sydney Morning Herald* on 14 October 2000, drawing on research from Forrester Research, Gartner Group, Dataquest and Yankee Group, identified the following information technology and business trends.

- Spending on e-commerce software is expected to climb from $US3.1 billion in 1999 to $US14.5 billion in the US alone by 2003. 'As B2B and B2C markets become more competitive, vendors will need increasingly sophisticated software'.

- Due to the shortage in IT skills within organisations, there will be an increasing demand for providers of corporate IT services.

- The worldwide Application Service Provider (ASP) market will grow from $US3.6 billion in 2000 to $US25.3 billion in 2004, as software transforms from a product to a service. However, 60% of ASPs are expected to fail by 2001. 'This will have a devastating effect on businesses that have outsourced their data services to an insolvent ASP'.

- The B2C will continue to be the USA leader, with online retail sales expected to reach $US10 billion in the US in Christmas 2000; double the total in 1999. By 2003, US consumers and businesses will spend $US2 trillion over the Net, but retailing will make up just $US144 billion of the total.

- The B2B e-commerce activity will continue to dominate, growing quickly from $US145 billion worldwide in 1999 to $US7.3 billion by 2004. By 2004, B2B e-commerce will represent 7% of total global sales transactions.

- Broadband technologies will continue to be provided. In the Asia-Pacific there will be 11.3 million residential broadband subscribers by 2003, mostly using cable modems and ASDL (high-speed access over normal telephone lines). The roll out is happening more quickly in the USA than in Australia or Europe: in the USA 3.3 million homes had broadband access in 2001 and this is expected to grow to 16.6 million homes by 2004.

- Telecommunications infrastructure, particularly the provision of fibre optic technology, is expected to grow exponentially, to satisfy the rapidly increasing demand for data traffic. Wireless technology will become more common, enhanced by new and faster mobile phone networks. Wireless technology is expected to move through a number of different generations in the next few years.

- As sales of PCs slow, the focus of chip makers will shift from PCs, to mobile phones and other wireless devices, providing increased memory and new consumer products. The global market for memory chips will grow from $US222 billion in 2001 to $US320 billion by 2004.

Debates about the terminology

The main difficulty for developers of e-commerce competencies is that the definition of e-commerce and its popular alternative e-business continues to be debated. To define e-commerce, firstly we need to clarify the changing definitions in 1998-1999, as discussed in *E-competent Australia* (ANTA 2000). The definitions of e-commerce shifted in 1998-1999 in two major respects:

- It was common during 1998 to see e-commerce defined as 'financial transactions over the Net', but the trend by late 1999 was to define e-commerce as any business communication involving electronic communication, including internal communication.

- In 1998, e-commerce was often defined as the technical event of an electronic communication, but the trend by late 1999 was to see e-commerce as an approach to business, with the technology as the enabler.

These changes to the definition in 1999 were modelled by the National Office for the Information Economy (NOIE). For instance, the following definition was provided by NOIE in April 1999 in *Australia's e-commerce report card*:

> E-commerce is defined as every type of business transaction in which the participants (i.e. suppliers, end users etc.) prepare or transact business or conduct their trade in goods or services electronically. (p 3)

While e-commerce is dominated by online technologies, the scope of e-commerce covers 'all forms of electronic processes':

> Online technologies are the most significant facets of e-commerce and include Internet retailing, Electronic Data Interchange, Internet banking, electronic settlements and browsing and selection of products and services over the Internet. (p 3)

This 1999 definition is much more substantial than previous definitions of e-commerce as buying and selling over the net.

A fuller definition of e-commerce was provided in NOIE's October 1999 report, *E-Australia.com.au*. The October 1999 definition widens the scope of e-commerce, and clarifies that e-commerce is not just about buying and selling goods; it is also about *inter*-company and *intra*-company activities:

> In e-commerce, business is communicated and transacted over networks and through computer systems. The most restrictive definition limits e-commerce to buying and selling goods and services, and transferring funds through digital communications. However, e-commerce also may include all inter-company and intra-company functions (such as marketing, finance, manufacturing, selling, and negotiation) that enable commerce and use electronic mail, EDI, file transfer, facsimile, videoconferencing, workflow, or interaction with a remote computer. E-commerce also includes buying and selling over the World Wide Web and the Internet, transferring electronic funds, using smart cards and digital cash, and doing business over digital networks. (p 60)

In *E-competent Australia* (Mitchell 2000), this October 1999 definition was recommended as the main reference point for the ANTA E-commerce Initiative, taking into account the fact that the nature and definition of e-commerce may change in future, due to new developments in business and technology.

In *E-competent Australia* (Mitchell 2000), e-business was taken to mean an individual company, enterprise or organisation or business unit that uses e-commerce, eg the online travel agency travel.com.au could be called an e-business. However, in defining e-commerce as 'doing business electronically' (Timmers 1999), *E-competent Australia* (Mitchell 2000) was suggesting that e-commerce is an overarching set of business principles behind new ways of doing business electronically.

However, the use of the terms e-commerce and e-business have continued to change since the publication of *E-competent Australia* (2000) and different interpretations of the terms e-commerce and e-business may continue in Australia for some time, for the following reasons. Firstly, some people see e-business as interchangeable with the term e-commerce. Secondly, the popular media likes to use e-business instead of e-commerce and to place the prefix e- before many words, particularly in newspaper headlines. Thirdly, academics are divided in their definitions of the two terms, with some seeing e-commerce as the overarching concept and others seeing e-commerce narrowly as buying and selling electronically. While we can expect that e-commerce and e-business will continue to be defined differently, present indications are that the term e-business may emerge as the most popular one in daily use.

The ANTA e-commerce project commenced by using the term e-commerce as the basic reference point. Business Services Training clearly prefers the term e-business, which is understandable, given its close relations with the business community, while IT&T ITAB generally uses the term e-commerce and sometimes e-business for the project. In late March 2001, the evaluator and the two ITABs agreed that, in the majority of cases, the term e-business would be used in relation to the competencies being developed. However, a glossary will be developed, providing definitions of e-business and e-commerce. The reasons for this decision included the strong desire of the Business Services ITAB to use e-business, and the value of not causing concern for trainers by using e-business for one set of competencies and e-commerce and e-business for the other set.

Discussion

To date, the formative evaluation of the ANTA project shows that the development of competencies and qualifications in e-commerce is challenging developers for a number of reasons. Firstly, there is an ongoing, international debate about the meaning of the term e-commerce. Secondly, the field of e-commerce is fluid, due to the continual development of new technologies that enable the creation of new business processes. Thirdly, the field of e-commerce is in flux, evidenced by the failure of many business models during 2000 and the emergence of new business models.

The definition of e-commerce will continue to be debated, affected by the development of new technologies, new business thinking and changing business practices. While debate will continue about the best business models and practices, there will be no preventing the inevitable increase in e-commerce activity, leading to the need for additional training.

References

Mitchell J G (2000) E-competent Australia. The impact of e-commerce on the National Training Framework. Melbourne: Australian National Training Authority.

Mitchell J G (2001) The evolving definition of e-commerce. www.catalystinteractive.com.au/ecommerce.

National Office for the Information Economy (1999, April) Australia's e-commerce report card. Canberra: Department of Communications, Information Technology and the Arts.

National Office for the Information Economy (1999, October) E-Australia.com.au. Canberra: Department of Communications, Information Technology and the Arts.

National Office for the Information Economy (1999, November) Summary of e-commerce - beyond 2000. Canberra: Department of Communications, Information Technology and the Arts.

Sydney Morning Herald (2000) Keeping on top of the technology wave. 14 October.

Timmers P (1999) Electronic commerce, strategies and models for business to business trading. Chichester: John Wiley and Sons Ltd.

Turban E, Lee J, King D and Chung H (2000) Electronic commerce, a managerial perspective. New Jersey: Prentice Hall.

Contact details

John Mitchell
Managing Director, John Mitchell and Associates
PO Box 151
Pyrmont NSW 2009
Ph: +61 2 9660 0255
Fax: +61 2 9660 0255
Email: johnm@jma.com.au

The high-skilled VET practitioner: interim findings from the evaluation of the long-term impacts of the Framing the Future projects in 1999-2000

John Mitchell

Managing Director, John Mitchell and Associates

Sarah Wood

Research Assistant, John Mitchell and Associates

Susan Young

Project Manager, Reframing the Future

Background

Framing the Future is a major staff development initiative of the Australian National Training Authority (ANTA). Since 1997, over 20,000 vocational education and training (VET) practitioners have participated in the program. This paper reports on research conducted in 2000-2001 on the long-term impacts of the 200 projects funded by Framing the Future in 1999 and the 250 conducted in 2000.

Anecdotal evidence, and the evidence of evaluative work already completed, suggests that Framing the Future has had impacts that go well beyond the individuals who have undertaken project work, or who have attended workshops. This was confirmed in the report *Re-framing the future: the long-term impacts of Framing the Future* (Mitchell 2000). The report covered the period 1997-1998 and found that Framing the Future had significant long-term impacts on the implementation of the National Training Framework (NTF); on the collaboration between training organisations and industry; and on staff development programs within organisations funded for a Framing the Future project. Additionally, the March 2000 report found that the impacts of Framing the Future went beyond the individual developing new skills and knowledge about the NTF, to improvements in work performance and organisational effectiveness. Framing the Future's model for staff development is now used by a number of organisations to influence organisational change. Finally, at the systemic level, it was found that Framing the Future has become an agent for change.

While the March 2000 report identified key trends and themes and provided many examples of impacts at different levels, this 2001 study will build on the earlier report, particularly by analysing a number of organisational case studies in more depth. Case study research methodology has received considerable academic support in recent decades, particularly as it caters for the study of innovations and the building of theories. Case study methodology also enables the development of generalisations and the addressing of how and why questions (Yin, *Case Study*

Research 1994). These advantages of case study research methodology will enrich the data analysis in this study of Framing the Future.

The selected case studies will focus on a range of VET organisations that normally have undertaken 4-5 Framing the Future projects, to understand how the impacts of Framing the Future can be experienced by different staff and in different ways within an organisation. The evaluation will focus not just on teaching staff, but on administrative, support and management personnel, in order to identify different types of impacts. In a sense, the evaluation will examine a vertical slice of the organisation, to identify a range of possible impacts within the organisation.

The possible benefits of such in-depth case study analyses are many. In particular, the analysis will help clarify the relative importance of two sets of factors that affect the impact of Framing the Future: factors that are internal to the organisation, such as its culture and leadership, and factors that are external to the organisation, such as the interventions of the Framing the Future national management team. For instance, the case studies may provide a number of insights into the relative influence of internal factors within an organisation that influence the effectiveness of Framing the Future; the organisation's strategic goals, industry relations, the staff development unit, culture, team processes and leadership. The case studies may also provide an insight into how the external actions of the Framing the Future project management team - such as networking, workshops, website and publications - influenced both the projects and the funded organisation.

The new study is exploring in more depth a number of the findings from the March 2000 report, such as new types of provider-industry networking emerging from Framing the Future projects, the impact of Framing the Future on organisational change, the importance of readiness for innovation and the development of learning organisations as a result of undertaking a Framing the Future project. The case studies will focus on the imperative within organisations to bring about change in the organisation, in order to facilitate the implementation of the National Training Framework.

The new project also is exploring themes which complement the report *High-skilled high-performing VET*, such as ways VET staff become high-skilled and ways in which VET organisations become high-performing through staff development and change management activities related to Framing the Future. It is expected that the final report will be a valuable resource for VET staff who coordinate Framing the Future (now Reframing the Future) activities.

The research for this study commenced in May 2000 and will conclude in May 2001.

Methodologies

Two main research methodologies are being used for this study: case study research and a survey. As at 30 March 2001, case study investigations had commenced with the Deaf Education Network in Sydney; the South Western Sydney Institute of TAFE; Adult and Community Education in far north NSW; the West Coast Institute of TAFE; Goodman Fielder and the Chisholm and Kangan Batman Institutes of TAFE in Melbourne; and Queensland Rail and the Brisbane Institute of TAFE. Further research will be conducted in April 2001 with a number of other organisations, including the Canberra Institute of Technology, Northern Territory University and the Agriculture and Horticulture Industry Training Advisory Board (ITAB) in South Australia.

The email survey form was distributed to approximately 180 Project Contacts in April 2000 and exactly 100 replies were returned. This is a very satisfying return rate of around 56%, achieved with the active support of the Framing the Future staff. In early March 2001, the email survey form was sent to the 250 Project Contacts for 2000 projects and as at 30 March 2001, 70 were returned, with more expected in early April. These survey returns represent a very substantial sample size, providing significant insights into the attitudes and experiences of many VET practitioners currently managing change.

The email survey includes three sets of questions. The first set of questions, forming Section A, relates to the types of outcomes identified by the project managers, including unanticipated outcomes. Section B of the survey form asks respondents to provide a ranking from 1-7 for twelve different factors that may have influenced the impacts of Framing the Future. Section C invites written responses to ten open-ended questions. Open-ended questions have been used, as they can elicit a range of subtleties that may not be identified in answers to empirical questions.

Findings

The following section provides excerpts from some initial findings from the case study research. The survey data will not be analysed until the collection of survey returns from the 2000 projects is completed.

Research to date has indicated that high-skilled, professional VET practitioners are meeting the challenges of change in innovative, responsive and flexible ways.

The high-skilled VET practitioner creatively interpreting Training Packages

In the following snapshot from Framing the Future activities undertaken by the Deaf Education Network in Sydney, VET practitioners are described customising the Certificate II in Information Technology to suit deaf and hearing impaired learners. By permanently improving communication in the organisation, the Framing the Future project has had a positive long-term impact on the Network.

Case study: issues of access for the deaf education network

The Deaf Education Network is a small community-based provider in suburban Sydney that offers accredited training to deaf and hearing impaired adult learners. A large number of the teachers are themselves deaf or hearing-impaired and communicate via Auslan (Australian Sign Language), hence implementing Training Packages presents teachers at DEN with many challenges. As Auslan has no written mode, English is viewed as a second language, increasing the difficulties of interpreting and delivering Training Packages.

In 1999, the Deaf Education Network conducted two Framing the Future projects. The first project aimed to assist trainers to develop appropriate strategies to customise the Certificate II in Information Technology for deaf and hearing impaired learners. When the group started the project, however, they realised that this was too big an aim, as the language used in the Training Package needed to be modified to allow deaf and hearing impaired teachers and learners to access it more easily. Consequently, the second project they conducted in 1999 helped to demystify Training Packages by developing 'Plain English' glossaries of the language used in the Training Package for Assessment and Workplace Training.

Framing the Future offered a unique opportunity for the organisation to focus on professional development. Work-based action learning is ideal for the teachers at the Deaf Education Network, who work best in small groups and who assess information visually and experientially. One participant noted that:

> The regular team meetings have been overwhelmingly successful, breaking down individual isolation and resulting in the sharing of ideas, resources, strategies and information about students.

This professional interaction had an important impact on the project participants at the time the project was conducted and, according to their final report, it also reinforced to the organisation the importance of continuing professional development.

The most important long-term impact of their involvement in Framing the Future was the increase in effective communication within the organisation.

> Through the project, participants realised that they needed time to communicate their needs to managers and they set out to develop appropriate and effective lines of communication that had not previously existed.

This increased emphasis on regular, effective communication is still part of the organisation today, months after the Framing the Future project ended.

The high-skilled VET practitioner addressing organisational change

Staff at the South West Institute of TAFE have used Framing the Future projects to not only address the needs of industry training, but to improve communication within Faculties that are spread across six colleges. Framing the Future has assisted staff in making communication more effective across the Institute's six colleges, through its encouragement of networking and sharing of resources and its encouragement of staff within similar discipline areas to work together where once they worked relatively independently.

Case study: assisting organisational change at the South Western Sydney Institute of TAFE

For Judy Ryan, Framing the Future program coordinator at the South Western Sydney Institute of TAFE, the program has provided avenues for staff to confidently approach changes within their organisation through an increased focus on professional development:

> Staff have found that the Framing the Future projects they were involved in have given them the momentum to be involved in learning within the

> organisation. This learning has not only made staff aware of the National Training Framework agenda but it has also assisted them in meeting the challenges of organisational change.

South Western Sydney Institute consists of six colleges: Granville College, Wetherall Park, Miller College, Liverpool, Macquarie Fields and Campbelltown. It has recently moved to a Faculty structure after operating as a Federated model for a number of years. For Judy Ryan

> Framing the Future provided the mechanisms not only to establish links between discipline areas spread across the six College locations but also to maintain them by encouraging staff to use this mechanism as an opportunity to engage in learning and development activities.

Framing the Future has assisted staff in making this change through its encouragement of networking and sharing of resources and its encouragement of staff within similar discipline areas to work together where once they worked relatively independently.

While institution-based delivery still makes up the majority of delivery at the South Western Sydney Institute, Framing the Future is encouraging groups within the organisation to embrace the change brought about by Training Packages by equipping them with the knowledge and confidence to engage industry in training. For Judy Ryan, staff members involved in Framing the Future projects have become 'learners', keen and able, thanks to the action learning approach, to be more enquiring in the future.

The high-skilled VET practitioner networking intrastate and interstate

The plumbing staff from the South Western Sydney Institute of TAFE stretched their thinking beyond their local council areas when they undertook a Framing the Future project in 2000, reaching out to their industry and to fellow VET practitioners across NSW and interstate. Since the completion of the Framing the Future project, this extensive networking has been extended and maintained.

Case study: developing networks as part of the Plumbing Training Project, South Western Sydney Institute

In early 2000 the plumbing section at Granville College, which makes up part of South Western Sydney Institute of TAFE, commenced a Framing the Future project. The overall aim of the project was to develop the skills to assist in understanding and implementing the Plumbing, Draining and Gasfitting Training Package. As part of this development, the project sought to increase participants' networking skills both inside and outside the organisation.

While the group, as part of the project, developed extensive networks within their own, large organisation, their networks also extended across New South Wales and interstate. The group convened two meetings during 2000 and invited representatives from plumbing departments in the Sydney metropolitan area and environs, including Wollongong and Wyong. At these meetings, representatives were encouraged to share their knowledge of Training Packages, and at the second meeting the South Western Sydney Institute Faculty Director responsible for plumbing as well as a representative from the NSW Construction ITAB were present.

For Peter Smith, Head Teacher of plumbing at Granville College, the input from the NSW Construction ITAB representative was invaluable, as he was able to fill in the knowledge gaps the group had about the Training Package.

As part of the project, a newsletter was generated that was sent to plumbing departments at institutes across NSW, and the group liaised with the Master Plumbers Association across Australia. In addition, three project participants went to a Victorian Plumbing Teachers Conference held in Halls Gap in Western Victoria towards the end of 2000. At the conference they were able to network with Victorian counterparts and share knowledge and discuss issues relating to the Plumbing Training Package.

Since the project finished, the networks established have been maintained and widened. According to Peter, representatives from different institutes in NSW, and also Victoria, have kept in touch via email and are still sharing ideas and discussing various approaches to their current training delivery and what they intend to do in the future. As well as continued email contact, the Spotlight on the Provider conference in Hobart late last year also gave the group an opportunity to maintain and enhance their networks.

> We have found that all players are getting together with industry, the Construction ITAB and interstate representatives as never before. All parties are grateful for the networking that has been created and we feel we are keeping the lines of communication open with one another more now than has been the case in recent times.

The high-skilled VET practitioner promoting training for competitive advantage

The following story gives an insight into a national company that is operating in a highly competitive environment. Through encouraging learning and development amongst the staff at Goodman Fielder, Ursula Groves, who manages Learning and Organisational Development in the Baking division of the company, is developing a highly skilled workforce able to meet the demands of the competitive environment in which they operate.

Case study: training for a competitive edge, Goodman Fielder

Goodman Fielder is Australia's largest food manufacturer and one of the world's 50 largest food companies. It operates in a highly competitive market sector, making, distributing and marketing the products from many well-recognised brands such as Sunicrust, Helgas, Buttercup, Uncle Toby's and Meadow Lea. Across Australia there are 20,000 employees, with 5,000 of them working in the baking sector at 34 bakeries in every State and Territory.

Goodman Fielder is a Registered Training Organisation (RTO), and while it has always provided development opportunities, there has been a recent push to strengthen learning processes within the organisation to make them more effective. Ursula Groves is Manager of Learning and Organisational Development in the Baking division of Goodman Fielder. Her aim is to make the company a learning organisation and she believes that:

> People development can provide Goodman Fielder with a competitive advantage, particularly in the current environment, which is highly competitive and challenging.

In 1999 and 2000 the organisation took part in two Framing the Future projects, both of which assisted participants to develop practical, responsive learning and assessment strategies for staff in the manufacturing and distribution functions of the company. For Ursula, the two projects have had valuable impacts on the organisation. The first project that was run looked at ways to implement the Food Processing (Plant Baking) Training Package within the organisation. Participants included full time training staff, and production managers and team leaders with responsibilities for training from Queensland, NSW, Victoria and Western Australia. For Ursula, the group learnt a lot and, because it was the first project undertaken at Goodman Fielder, their approach was quite experimental:

> We achieved some great outcomes. The network that we established as part of the project is still going a year and a half later, which for a national company is extremely beneficial.

The second project used the lessons learnt in the previous project and targeted development for staff involved in distribution at Goodman Fielder. There were four distribution coordinators that participated from bakeries in Melbourne, Sydney, Adelaide and Perth. There has been a recent national push within the organisation to encourage drivers to increase the number of products that they are distributing. The project developed transport and distribution assessment tools that integrated some sales competencies. According to Ursula:

> We see this as a way to increase the skills of our staff and give the organisation a competitive edge.

While the two projects provided tangible results, they also helped the organisation to become more of a learning organisation. For Ursula, whose goal this is, this has been a valuable long-term impact.

> Framing the Future involved people who are not usually part of structured learning. They began to see the value in the development and assessment we were planning to deliver in the organisation and they saw that what we were proposing was not about pulling people off the job and putting them in a classroom. Framing the Future has been a catalyst for changing people's perceptions.

The high-skilled VET practitioners influencing strategic planning

West Coast College of TAFE invented a sophisticated staffing structure for its Framing the Future project teams, to ensure that the projects were effective and influenced corporate strategic planning. Three groups of staf4f are involved in projects: strategic decision makers; teachers and administrators; and facilitators and project managers.

Case study: West Coast College of TAFE (Western Australia)

West College of TAFE is one of the largest TAFE Colleges in Western Australia. There are four major campuses: Joondalup, Balga, Carine and an Adult Migrant Education Service in the heart of Perth. Across these campuses there are some 42,000 students enrolled each year, serviced by about 650 full-time staff and 1000 sessional staff. Over the last few years, the College has been faced with a number of challenges in adapting to the changes within the VET sector as a result of the introduction of the National Training Framework.

QRD Consulting, the research and development arm of West Coast College, was established in 1994 to assist the College in meeting many of these challenges. For Moira Watson, Manager of QRD Consulting:

> Framing the Future has definitely helped us to achieve organisational goals and make the College more strategic and responsive.

During 1999 and 2000, West Coast College conducted eleven Framing the Future projects. Each of the projects was designed to address specific issues within the organisation and was conducted in a way that would ensure maximum impact for the College. According to Moira, the structure of the project teams, with involvement from key individuals and groups within the organisation has meant that the projects have had valuable, long-term impacts.

> Three different teams are involved in the running of Framing the Future projects at West Coast College. The Associate Team is made up of strategic decision makers from the College who are usually Campus Directors or Managers. They meet during the life of the project to discuss the implications of the project and what strategic decisions need to be made to ensure that the project has an impact after it has been completed. The Project Team or Core Team is made up of project participants who are usually the teachers and administrators at the College. It is their work that informs the strategic discussions at the Associate Team level. In the middle is QRD Consulting who are the facilitators and project managers. Generally, there is a Project Sponsor, usually the Managing Director or Director Academic Development, who acts as the overall project mentor.

In this way, with all the different parties involved, our Framing the Future projects work from and also inform the College's strategic directions. In fact, the *West Coast College Strategic Directions 2001–2005* was informed by the Framing the Future projects we ran in 1999 and 2000.

Discussion

VET practitioners portrayed in the case studies outlined above, and involved in responding to a changing training environment, include teachers, many of whom are now actively engaging with industry in the workplace; human resource managers and staff development managers, who are identifying changing staff development needs and influencing corporate planning; administrative and management staff, who are developing new procedures to support more flexible approaches to the management of training and to the provision of staff development; and senior managers, who are vigorously identifying a strategic fit between their organisations, the requirements of the National Training Framework and the training needs of industry.

The case study research undertaken to date highlights the professional expertise of VET practitioners faced by the multiple challenges of implementing the National Training Framework at a time of increasing change in industry, brought about by factors such as globalisation and the continual spread of information and communication technologies. The professional expertise captured in the case studies includes using pedagogical skills to customise Training Packages; developing innovative and enduring networks with industry and other training colleagues; redesigning staff development to meet the challenges of the National Training Framework; improving organisational cooperation and learning; and changing corporate strategic plans to better suit the needs of clients.

Contact details

John Mitchell
Managing Director, John Mitchell and Associates
PO Box 151
Pyrmont, New South Wales 2009
Ph: +61 2 9660 0255
Fax: +61 2 9660 0255
Email: johnm@jma.com.au

Sarah Wood
Research Assistant, John Mitchell and Associates
PO Box 151
Pyrmont, New South Wales 2009
Ph: +61 2 9660 0255
Fax: +61 2 9660 0255
Email: johnm@jma.com.au

Susan Young
Project Manager, Reframing the Future
Regency Institute of TAFE
Woodford Road
Elizabeth, South Australia 5112
Ph: +61 8 8207 9787
Fax: +61 8 8207 9708
Email: susan.young@regency.tafe.sa.edu.au

What are the mitigating conditions that prevent the uptake of apprenticeships and traineeships among post-secondary school adolescents in Victoria?

Alan Montague

RMIT University, Victoria

This paper will provide an analysis of the mitigating conditions and factors that prevent the uptake of apprenticeships and traineeships amongst adolescents exiting secondary schools. The data is based on a thesis completed in May 2000 involving analysis of theoretical research, observation in the field, and case study interviews with secondary school educators involved in Career Education and Vocational Education and Training (VET) coordination.

Data will be presented detailing a range of mitigating {*reasons that moderate interest*} conditions including:

- A brief description of apprenticeships and traineeships
- Labour market statistics that demonstrate a prejudice against youth
- Attitudes of parents, teachers and students (including peer pressure)
- Inadequate training for teachers
- A general lack of understanding and appreciation of the vocational potential of apprenticeships and traineeships
- A secondary education system that provides a curriculum that is biased towards higher education, consequently serving a minority of students
- The potential value of apprenticeships and traineeships in terms of a vocational and educational pathway
- The need for a secondary school environment to acknowledge and provide equitable rewards for students that possess skills that are not based on traditional academic abilities.

The central issue of the research involved mitigating conditions that prevent the uptake of apprenticeships and traineeships among young people aged 15-19 years of age who have left school in Victoria. Examples were drawn from various sources and include numerous theorists and studies in this field, as well as comments frequently made by employers, teachers, parents, students, TAFE teachers, Department of Schools Education staff, and Group Training Company and New Apprenticeship Centre staff. Participant observation, from an ethnographic research perspective, has featured prominently in the research, together with four case studies containing comments from teachers working in the vocational education area.

This paper is a summary of a Masters thesis completed in May 2000. The paper has added updated material from the Kirby Final Report (2000) and Teese (2000).

The secondary education system in Victoria provides a curriculum that is biased towards higher education and consequently serves the minority of students within state secondary schools (Kirby Final Report 2000; Teese 2000). While this bias may be gradually shifting, the majority of students who undertake the Victorian Certificate of Education (VCE) to a degree are educationally and vocationally disadvantaged when they do not proceed to higher education (Sweet 1998). Within this group, there are significant numbers of competent people who would be well served by the Apprenticeship and Traineeship Program (ATTP) when leaving school. For a range of reasons, these young people are not being effectively linked to the apprenticeship program (Ainley 1998; Hargreaves 1994; Hargreaves et al 1996; Peoples 1998; Sweet 1998). As will be demonstrated in this paper, vast numbers of adolescents exiting secondary education undertake increasing levels of part-time employment which does not involve training (Ainley 1998; Peoples 1998; Sweet 1998). An added disadvantage resulting from the increase in part-time employment for young people is the associated decrease in their average incomes (Ainley 1998; Sweet 1998). This may result in increased social problems amongst youth, and it is a responsibility the society must face, including the education sector (Dusseldorp Executive Summary 1998; Kirby Final Report 2000). Whilst many of these young people are no doubt highly motivated to work, the lack of training associated with many part-time positions inhibits their path to a career that is underpinned by industry-approved qualifications (Kirby Final Report 2000; Sweet 1998).

Apprenticeships and traineeships are now available in almost all industry sectors. Industry sectors not covered under technical training available under ATTP are few. However a reluctance to undertake apprenticeships and traineeships (whether full time as past students, or part time within the school curriculum) occur for a number of reasons. These may include factors within the secondary-school education system such as a rigidity with timetabling (Kirby Final Report 2000), attitudes of teachers (Kirby Final Report 2000), plus parental and peer influence (refer ANOP 1994) and possibly the belief that a higher education qualification leads to increased security and better pay (Peoples 1998). Frequently, higher education may not provide the salary level or security envisaged by parents or students, nor do university degrees readily lead to employment (Peoples 1998).

Many adolescent students, parents and secondary school teachers are unaware of the vocational and training opportunities that the ATTP can provide (Peoples 1998). Problems exist with a school system unable to develop a curriculum that adequately prepares students for their adult vocational lives (Hargreaves 1994; Hargreaves et al 1996; Kirby Interim Report 2000; Kirby Final Report 2000; Peoples 1998; Teese 2000). Many students exiting secondary education, their teachers and parents, demonstrate a lack of understanding of the pathways available through these programs to certificate courses, diplomas, degrees and beyond (Kirby Final Report 2000). The education system needs to be questioned from the perspective of educative processes and the curriculum, which has failed to provide effective vocational linkages for increasing numbers of student clients (Ainley 1998; Hargreaves et al 1996; Kirby Final Report 2000; Kirby Interim Report 2000; Peoples 1998; Sweet 1998). Simply, the ATTP is not appropriately emphasised by a sufficient number of educators as a sound alternative credential to higher education (Hargreaves 1994; Hargreaves et al 1996; Peoples 1998; Sweet 1998). This research provides a sample of data that describes and quantifies the growing number of adolescents and other young people who are undertaking part-time employment without accredited training. While many young people are aware of the benefits apprenticeships and traineeships can provide (ANOP 1994), educational and social circumstances suggest that 'other' influences cause them to shun the ATTP (Peoples 1998).

To investigate why the ATTP is shunned, it was necessary to develop research that covered a number of important issues which are summarised below.

Apprenticeships and Traineeships Training Program

Firstly, it is important to describe apprenticeships and traineeships.

> Together, apprenticeships and traineeships comprise the contract of training system. Through this system, employers and apprentices trainees enter a legal agreement for employment-based training. Although its particular form has varied over time, this regulated and structured training system remains a core component of Australia's skills formation and thus its wealth-creating system and, historically, has formed a fundamental pathway from school into the workforce ... (Schofield 2000)

Apprentices/trainees can be of any age over 15 years, and may already possess a qualification (Smith et al 1997).

Employers choose their apprentice or trainee and the training providers are generally funded by State Governments to deliver the training. Usually, an apprentice or trainee is paid a training wage, which reflects the amount of time spent in training for the duration of their training contract (Smith et al 1997).

Registered Training Organisations (RTOs) are registered under the Australian Recognition Framework by State Training Boards to train and assess people, and award nationally recognised qualifications under the ATTP.

An employment agreement is signed for apprentices and trainees and includes an outline of their training program, clarifying the link between work and training. Work and training should be integrated, because time in the workplace is a vital part of training. Under the Agreement the employer is obliged to provide on-the-job training that reflects the off-the-job training provided by a registered training organisation (Smith et al 1997). The trainee or apprentice has a mutual obligation to work and undertake appropriate training.

Apprenticeships and traineeships are based on industry-approved training packages (where they exist) or curricula. Training packages contain approved industry competency standards, enabling apprentices and trainees to obtain a nationally recognised qualification that includes a combination of these standards (Australian National Training Authority 2000). The National Training Framework Committee must endorse all competency standards, qualifications and assessment guidelines (ibid). This committee consists of the Australian National Training Authority (ANTA) and all Ministers for VET. Training packages also involve industry-approved assessment guidelines. Occasionally the training packages may also contain learning, assessment and professional development resources (Australian National Training Authority 2000).

BEST COPY AVAILABLE

Some traineeships and apprenticeships are now delivered entirely in the workplace, with the training provided by supervisors, fellow workers and trainers from RTOs.

An apprenticeship generally lasts three to four years and a traineeship generally lasts one year, although two-year traineeships are becoming more prevalent.

Labour market analysis and adolescents

This section examines changes in the teenage labour market (mainly in the last decade), patterns of school participation and unemployment rates for young persons who are neither in education nor employment, in order to demonstrate the obstacles adolescents face when seeking full-time work, including apprenticeships and traineeships.

As the following statistics show, the current labour market offers a grim future for many young school leavers. On a national basis, only 30% of all school leavers go directly to higher education (Sweet 1998). Unfortunately, the statistics below suggest that lesser-skilled part-time positions are increasing. There are, however, many instances of part-time positions where young people would benefit from being trained under the ATTP to gain credentials towards their careers.

There is increased part-time employment amongst young people, plus high levels of unemployment. 'The proportion of 15–19 year olds with a full-time job fell from 32 per cent in the mid 1980s to 28 per cent at the beginning of the 1990s and then to 17 per cent by August 1996' (Sweet 1998, p 2).

Unemployment statistics provide an inadequate indicator of the plight of school leavers facing a changing labour market (Sweet 1998).

> In total, almost 15 per cent of all 15–19 year olds are neither in full-time education nor in full-time work, and this proportion has grown during the 1990s. The problem that young people face in making the transition from initial education to their working life is not only to find work but to be able to escape from a cycle of insecure, casual, temporary and part-time work after they leave school. Many completely drop out of both education and the labour market. (Sweet 1998, p 2)

The problem of fewer young people obtaining training, when they have left school prior to completing VCE, is further exacerbated by the decreasing proportion of persons aged 15–19 studying within TAFE (Peoples 1998; Robinson and Ball 1998).

> Between 1989–90, government expenditure on TAFE increased by 21 per cent in real terms and the number of students in the sector grew by some forty per cent. Those aged 15–19 years fell from thirty per cent to twenty per cent of all vocational education and training students (including the ATTP) between 1990 and 1996. (Peoples 1998, p 13, quoting Robinson and Ball 1998, p 67)

Older persons are now more common in VET courses and recognise the value to their careers of studying TAFE programs.

Since 1994, the adult participation rate in traineeships has dramatically increased. In 1996, of those commencing traineeships, 28,000 were aged 20 or over; only 41% were teenagers. In the financial year 1996–1997, 71% of trainees were over 21 years old (Peoples 1998; Sweet 1998).

Schofield describes the participation of older persons in the ATTP succinctly.

> Shifts in the age profile of apprentices and trainees are evident. In 1999 the average age of a new employee commencing as a trainee was almost 27 years and, excluding existing employees, there were more than 5,000 commencements aged over 40. The image of apprenticeships and traineeships as a structured entry-level pathway for young people from school to work no longer matches reality. (Schofield 2000)

This leads to a growing number of non-students and school leavers having to opt for insecure part-time work not linked to training or education. In effect, the labour market, or more precisely employers, are opting for more mature persons to recruit as apprentices or trainees. Three questions arise. Firstly to what degree does career education in secondary schools address the ATTP as a viable vocational and educational pathway for adolescents (this requires added research)? Secondly, why are older people being attracted to the ATTP as a viable career pathway? Finally, why was the ATTP not seriously considered in adolescence?

Many factors influence school retention rates. Students throughout the 1990s were leaving in increasing numbers, peaking in 1995-1996 (Robinson and Ball 1998; Sweet 1998) despite the decreasing availability of full-time positions and the fierce competition for lower-paid part-time work, which is also sought by full-time students (Sweet 1998). Participation of teenagers in apprenticeships and traineeships has reduced even though the numbers of adolescents leaving education prior to completing year 12 increased to alarming levels in the 1990s (Peoples 1998; Robinson and Ball 1998).

Sweet (1998) observed that in Australia, 72,000 non-students were looking for work and around 280,000 students were employed. Given the increasing numbers of youth, and particularly early school leavers, locked into numerous spells of insecure temporary work, unemployment, or labour market programs, significant changes are required. Such changes must include the development and formulation of vocational programs to better equip young people's entry into the labour market at the stage they exit education (Kirby Final Report 2000). This group are only half as likely as year 12 leavers to undertake post-school education and training. They are more than three times as likely as year 12 leavers to find themselves on the fringes of full-time work or study for extended periods; whether unemployed, in insecure part-time and casual work, or not in the labour force at all (Sweet 1998).

The ATTP needs to be promoted as a sound alternative education program to resolve young people's difficulties obtaining vocational pathways. Many apprenticeships and traineeships require high levels of competence in English, mathematics and physics. However, the program has such breadth and flexibility it is possible to accommodate a range of skill bases in the program, and if necessary customise the ATTP to include VCE maths and physics, giving interest in these science areas a boost due to relevance. The statistics for school leavers present a grim picture. Of the total school leavers in 1996, less than 30% gained entrance to university in the following year (Peoples 1998).

BEST COPY AVAILABLE

The statistics do paint a grim picture for young people. Society divides its wealth through employment and too many young people are experiencing fewer employment opportunities that have a connection to sustained employability with training. The social and economic problems that this can induce for youth and the society at large requires serious action stemming from the educational sphere in tandem with community partnerships (Kirby Final Report 2000). Apprenticeships and traineeships require serious re-evaluation and understanding to act as a key part of the solution.

Features of VET in Schools summary

VET in Schools generally runs as a two-year program (although it can be three years) combining general VCE studies (HSC in other states) and accredited VET. It enables students to undertake a nationally recognised vocational qualification by studying programs which involve workplace experience or a part-time ATTP, and concurrently complete the Victorian Certificate of Education. VET in Schools is a policy initiative aimed at increasing the employability of young people when they leave school, particularly if they are not university bound.

Funds were made available for the development and delivery of programs which would expand vocational education in schools to smooth the transition from school to work.

Priorities within the VET in Schools program include the development of part-time school-based apprenticeships and traineeships. In Victorian secondary schools in 1998, less than 386 students were undertaking this program (Joint Ministerial Statement VET in Schools, May 1999, p 6) due in part to the inflexibility of school timetables and difficulties experienced by teachers and industry in understanding the complexity of the program. Despite the Federal Government and Victorian State Government initiatives aimed to assist young people in the transition from school to work, the statistics presented in this research clearly indicate failure.

The inclusion of VET in Schools programs in secondary education can assist students in two main areas. VET in Schools can increase the ENTER score and boost the prospect of entering university or TAFE courses (Kirby Final Report 2000). The second main area is the capacity for VET programs to provide exposure to areas covered under the ATTP, as the same learning units are embedded in the Training Package competencies in almost all VET in Schools programs.

Despite the VET in Schools programs being absorbed into the VCE ENTER program more formally, interestingly, only about 20% of students, from the statistics presented by Polesel, are using the VET in Schools program as a lever to obtain an apprenticeship or traineeship (Polesel et al 1998, p 20). The VET in Schools program has been 'boxed' in to the ENTER score program (Kirby Final Report 2000). This creates a mix of intent of the program - ie whether VET in Schools are to assist students to pursue the program for vocational purposes, or primarily to increase their ENTER score. The program of course does allow students to keep an option open and have an added vocational background if they were to progress to university only to find that this lacked relevance to their vocational direction.

> Nevertheless, attempts to assist young Australians through the VET sector have been made. Indeed millions of dollars have been spent with little to show for the expenditure. The Federal Labour Government sank $20 million of taxpayers money into projects related to key competencies. With what result? The Australian Vocational Training System (AVTS) was overtaken, revamped and implementation delayed by the Howard Government. We await the outcome. (Peoples 1998, p 12)

In 1997, 31.5% of Victorian students who pursued VET in Schools continued full-time study at TAFE, with only 20.5% opting to undertake an apprenticeship or traineeship. In 1994, the number of year 11 and 12 students from all schools doing VET in Schools programs was 461, which has increased to 9,661 in 1997 and 11,594 in 1998 (Polesel et al 1998, p 20). Despite these large numbers, the uptake of young people into apprenticeships and traineeships is decreasing (Woden 1998).

The research undertaken by Teese calls into question the effectiveness of the VET in Schools program and suggests that curriculum needs serious revision (Teese 2000). The accuracy of the following statement is questionable in the light of the research Teese presents concerning equitable outcomes from education notable in Victoria.

> The curriculum focus now includes provision for the 70 per cent of students who do not intend to take a university pathway at this stage of their education. Secondary teachers are now required to teach courses accredited by industry training authorities and to cater for workplace specialisations and placements. (Bickmore-Brand 1998)

The VET in Schools program, however, does not appear to be creating the vocational outcomes for which it was intended, despite ...

> The present trend of Federal and State Governments (placing) a high priority on vocational education and training programs in post-compulsory schooling. There has been a subsequent shift in the kind of provision being offered by secondary education. (Bickmore-Brand 1998)

An objective evaluation of the merits of the ATTP and use of the VET in Schools programs effectively to locate employment from the statistics presented above is required. The increasing numbers of students undertaking the VET programs clashes with the reduced numbers of young people undertaking full-time apprenticeships and traineeships.

> Ball and Robinson show that apprenticeship commencements by 15–19 year olds plummeted during the 1990s, falling by 21,592 or 44 per cent between 1989–90 and 1996. In the same period apprenticeship commencements by those aged 20 and over grew by 3,169 or 47 per cent. Between 1989–90 and 1996 traineeship commencements by 15–19 year olds grew by 45 per cent from 13,247 to 19,253. The total number of structured training commencements (apprenticeships plus traineeships) by 15–19 year olds fell by 15,586 or 25 per cent over the period. A substantial part of the fall in apprenticeship commencements occurred during the recession of the early 1990s. However in contrast to previous decades, apprenticeship numbers did not recover after the end of the 1990s recession, and in recent years have continued to decline.
> (Sweet 1998)

BEST COPY AVAILABLE

Government policy on VET operates in a complex environment, as parents and students clearly view a general university education as a prestigious pathway to future employment (Peoples 1998; Ryan 1997; Teese 2000).

The education, employment and training of young people have been key concerns of the Federal Government and State Governments for more than a decade (Sweet 1998). Increasing young people's participation in VET has been one of the central priorities of government during the 1990s. Since 1995, growth has occurred in VET programs in schools (VET in Schools), largely as a response to 'grass-roots demand' (Sweet 1998).

> [There were] 274,500 15–19 year olds participating in vocational education and training in 1990 compared to 260,900 who were participating in 1996. Between 1990 and 1996, the proportion of 15–19 year olds taking part in vocational education and training remained largely unchanged at around 20 per cent. (Sweet 1998)

Despite the huge investment in the last decade in VET in Schools, the program is not succeeding to interest secondary students in the ATTP as a vocational goal (Peoples 1998). It would appear that significant change in career guidance is necessary to give the program an improved status in the face of alarming statistics.

The education, employment and training of young people have been key concerns of the Federal Government and State Governments for more than a decade (Sweet 1998). The underlying objectives of the policies, programs and expenditures that have flowed from this concern have been few and simple. They are to:

- reduce youth unemployment;
- increase young people's access to and outcomes from VET, particularly through apprenticeships and traineeships;
- increase the numbers who stay at school to complete year 12;
- increase the number of young people entering university.

(Dusseldorp Executive Summary 1998)

Between 1989-1990 and 1995-1996, government expenditure on TAFE increased by 21% in real terms: from $1.9 billion to $2.6 billion. Federal expenditure grew rapidly, accounting for 28% of total recurrent expenditure in 1995, compared with only 17% in 1991 (Sweet 1998).

The VET in Schools programs embodies the same competencies that are found in the ATTP. With an education system that results in the minority of students progressing to university and a form of curriculum that is linked to apprenticeships and traineeships, being the VET in Schools programs, it has to be questioned why this pathway is not pursued to a greater degree by adolescents encouraged by parents and educators. Is it shameful to become an apprentice or trainee?

Curriculum in schools

Education needs significant change so that students make a smooth transition to employment through educational and vocational measures that suit their needs, without endangering their dignity in circumstances where their skills do not surface if a non-traditional education curriculum is chosen. An education system needs to provide support and a curriculum framework able to identify other capacities and skills among the students. As Teese suggests, educational institutions now face complexities trying to address the needs of many students who 'were unknown in senior forms twenty years ago or even ten' (Teese 2000, p 1), through the work of devoted teachers who are poorly acknowledged and stretched to apply a syllabus to try and make it relevant to many of the students in their charge (Hargreaves et al 1996; Kirby Final Report 2000; Teese 2000).

The policy thrust of the Kirby Final Report adopted by the Victorian Government aims to address the development of pathways for post-compulsory students desperately in need of assistance. The situation as Teese puts it is that '... the new populations who have been compelled to extend their time at school as jobs for young people have disappeared have paid a heavy price for their academic temerity' (Teese 2000, p 2). The need for temerity to be replaced with a learning environment that is suited to the needs of all students is essential in terms of social capital (Kirby Final Report 2000). The fact that year 11 and 12 students in Victoria need to undertake the VCE and be judged on their merits on an ENTER score that predominantly is used by universities to select students is worthy of debate and policy redirection (Kirby Final Report 2000; Teese 2000). As Teese writes, 'it is a sad irony that the young people who most need to succeed if they are to counteract the economic breakdown and degradation that surround them are instead the most likely to fail' (Teese 2000, p 3). Teese clearly suggests that the curriculum remains within the domain of the fortunate and acts as a fortress to protect social privilege and 'becomes more valuable as a way of preserving or extending social advantage' (Teese 2000, p 3).

Vocational experience as a bridge to adult vocational lives should surely be a mandatory component within the curriculum in secondary education and boosted to enable students to understand where their place may be in a changing industrial landscape (Hargreaves et al 1996). Hargreaves' and Kirby's views of education coincide as each agrees that the curricula needs to be substantially broadened using both internal and external resources to benefit students (Hargreaves 1994; Hargreaves et al 1996; Kirby Final Report 2000).

The educational path to certain vocations through higher education is well understood by students, teachers and parents. The path to the trade fields is no longer as clearly understood. It is as though a prejudice exists: that the ATTP is 'prejudged' as a less than sound educational pathway and rejected as inferior. Too frequently, adolescents are set work under a curriculum which is often askew from their needs, skills and interests (Hargreaves et al 1996; Kirby Final Report 2000; Schools Commission 1980).

Author's note: The Schools Commission Report of 1980 is notable as it demonstrates recurring problems faced by adolescents in 1980 even though vastly different problems are faced now by youth in terms of the deteriorating labour market, the demise of technical schools, and a curriculum that requires revision to the educational and vocational needs of students. An issue of note when referring to this document is the overall lack of change that has occurred in education in the last twenty years. The Kirby Final Report (2000) has elicited very similar problems secondary schools students face within schools today to that identified by the Schools Commission Report.

BEST COPY AVAILABLE

Hargreaves and the Schools Commission stated that teachers were an added obstacle to changes in the curriculum to address the needs of the students (Hargreaves et al 1996; Schools Commission Report 1980). Teese has a more compelling and sophisticated argument. He places the burden of responsibility on the syllabus writers that dictate the framework that teachers have at their disposal for students to be judged against. This to Teese is inadequate, as the curriculum or syllabus may lack relevance for many students in terms of identifying skills and abilities they possess (Teese 2000). If Teese's view is accepted - and it is supported by Kirby (Final Report 2000), Hargreaves et al (1996) and others - then identifying skills to plan a smooth path to an adult working life for students exiting education becomes complex and places the student in a position that has a likelihood of affecting dignity, confidence and self-belief. The outcome of this has the capacity to flow on to social problems. Teese levels an element of responsibility on universities for dictating the curriculum taught in secondary education, and setting the recurring traditional subjects that serve an 'archaic' university regime with a 'vertical integration' between secondary schools and the universities (Teese 2000).

> Not only has the social map of achievement been ignored - thus compelling teachers to make do with design or abandon the student - but the syllabus has usually been planned for integration into university studies, even though most students completing school from the mid-1960s onwards did not enter university. Programs to integrate schooling with work or vocational training, such as school based Technical Year 12 courses introduced in Victoria in 1982, have been confined to the margins or disappeared. (Teese 2000, p 7)

Students need to be assessed against a broader curriculum framework to assess capabilities. This has the capacity to incorporate a range of broadened curricula including the VET in Schools programs, encourage participation, and ensure rewards occur on an equal footing with traditional education (Hargreaves et al 1996; Peoples 1998). As Kirby (Interim Report 2000) stated, the numbers of students pursuing curriculum unsuited to their needs is an urgent problem that needs to be addressed (this issue was prominent in the Schools Commission Report of 1980). Teese is of the view that the history of curriculum reform and counter reform has created little discernible impact on the social pattern of results (Teese 2000). Even though the material within the subjects may have varied over the past fifty years, access to the universities is still quarantined to privilege in the main, and the traditional subjects of languages, mathematics and physical sciences are the triggers to academic entrée to university (Teese 2000). So if this is the case, and Teese (2000) has the statistical evidence to support this scenario convincingly, it is time for the curriculum to move from centring on the 'qualities' of the learner to what the curriculum can induce in the student, with a broader curriculum (Teese 2000).

Prestige and influence that stem from educational structures using the curriculum to maintain position show the greatest opposition to change (Teese 2000). The Kirby Final Report (2000) has developed policies that have the capacity and potential to allow a flexibility in the education system that may expand the curriculum and access points to education that are well planned and perhaps more suitable to students - all students.

> This historical bias reflects the unequal capacity of different social groups into influence the content of curriculum and to exploit the opportunities that it contains. (Teese 2000, p 196)

Relevance of secondary school curriculum

> Around a quarter of low achievers doing the VCE reject the proposition that the curriculum caters for all. They do not agree that the VCE, at least as delivered in their school, is inclusive.
> (Kirby Interim Report 2000, p 5)

The need to comprehensively reassess the school curriculum in terms of students' and society's needs is crucial (Kirby Final Report 2000). Schools may attract students for longer periods if they institute a new reward system - one that acknowledges skills in a broader curriculum within school and industry settings and is seen as more relevant to their needs. The schools need access to a broader and more relevant curriculum and the ability to form partnerships external to the school to address the needs of students. In many cases this is being done effectively, however greater assistance and support is required, plus licence (Kirby Final Report 2000).

One of the fundamental aims of education should be to prepare students for their adult vocational lives. Most schools with a bent towards higher education and academic prowess may induce an educational environment that students sadly clash with due to a lack of relevance to their needs (Hargreaves et al 1996; Kirby Interim Report 2000; Teese 2000). Many school teachers considered that they were unable to develop a framework of education that was suited to the majority group, ie those students that were not going to progress to higher education (Schools Commission 1980). Teese sees this as a responsibility of the syllabus writers (Teese 2000). The Kirby Final Report (2000) has outlined revolutionary changes to policy that has as one of its cornerstones being the development of Local Learning and Employment Networks (LLENS) to plan effective pathways and utilisation of various community, secondary and tertiary education structures to plan effective and pragmatic outcomes for students. Today the numbers finding a track to higher education have doubled since 1980, however secondary education needs a framework that will more adequately address the needs of the 70% of students who are not bound for higher education when they leave school (Bickmore-Brand 1998). With larger numbers of students pursuing VET in Schools programs in the late 1990s, things have changed slightly. However, the change is not reflected in the thinking of the majority of teachers, as they see VET as a threat (Bickmore-Brand 1998).

Added stresses emerge for some students who attempt to aspire to a higher education pathway due to peer group pressure, teacher/educational bias, and pressure from parents (Hargreaves et al 1996; Peoples 1998, ANOP Research Services Pty Ltd 1994). The stress may occur as a result of finding that their academic skills are not of the type or level sought by a tertiary institution. Despite possessing other 'intelligences' or skills, they have been steeped in an education system that has failed to draw out those skills due to an inappropriate curriculum (Teese 2000).

Traditional education organised around 'core curriculum' and predominantly involving conventional high-status school subjects is fraught with problems (Hargreaves et al 1996; Teese 2000). To Hargreaves and colleagues (1996), a secondary school curriculum that centred on high-status school subjects was narrow and entailed a less than adequate form of intellectual achievement.

In 1980 the Commissioners were concerned that amongst the academic stream, there was a pace that most students were expected to match regardless of their background or individual learning requirements. Deficiencies in prior learning were largely unattended to, according to the Report. There was a rigidity of timetabling and structured expectations in all the schools that were a part of the research, which resulted in locking in the pace that academic achievement was supposed to occur en masse. The Schools Commission questioned the basic common sense of this approach and was concerned at the effect on students unable to reflect the standard demanded by this rigid system (Schools Commission 1980). The Commission Report noted that many students experienced difficulty keeping pace with the curriculum due to its limited relevance to their skills (Schools Commission Report 1980). From the data presented by Hargreaves and Kirby, circumstances suggest that the problems the Commission reported in 1980 prevail (refer Hargreaves et al 1976; Kirby Final Report 2000).

This section has highlighted the need for secondary education to change considerably. It is clear that the dominating curriculum and syllabus in secondary education requires comprehensive revision to cater for the broadening needs of the students exiting secondary schools. The next section of this paper 'grounds' the research in the sense that it compares the comments of four secondary school educators to those of the theorists already quoted and the statistical plight of young people from a labour market perspective.

Case study informants' responses

The theoretical framework of the research was to present data from theorists working in the field, and then to demonstrate clearly that there were significant problems faced by 15-19 year olds shown by labour market statistics to demonstrate an unsavoury plight for young members in the community. The added pieces to the demonstration of the validity, or otherwise, in the research, was to establish four case studies to provide a check on the theoretical data and elements that have been portrayed through participant observation.

Authors note: The names of the respondents are not their real names for reasons of confidentiality. The interviews were recorded on audiotape. Three non-leading questions were posed to each informant, enabling them to make wide-ranging comments about the apprenticeship and traineeship training program and the secondary education sector. The following is a very abbreviated summary of their responses. For a more comprehensive insight of the informants, refer to the full thesis.

The Informants

Don

Don has over 10 years experience working in the VET area and works in a school set in a poorer region that features a concentration of manufacturing and engineering enterprises.

Harriet

Harriet also has a well-grounded experience with the ATTP. Harriet worked for a period approaching five years with a Group Training Company. At the time of writing, Harriet worked as a careers adviser and counsellor in two schools that had a majority of disadvantaged students. Harriet has also worked as a VET trainer in pre-vocational courses that lead to apprenticeships and traineeships.

Krystal

Krystal has worked in the VET and careers areas within secondary schools for over five years and is very experienced in career education and VET programs. Her earlier experience in private enterprise provides a broader experience that rarely occurs in career advisers and VET coordinators in schools.

Paul

Paul has the least experience in the field, with just less than one year working as a career adviser. Although he came to teaching from industry as an older teacher, his experience within industry with the ATTP was limited.

Views on the ATTP

Each informant viewed the ATTP as potentially valuable to many students. Part-time traineeships as a part of the school experience were considered an excellent pathway, provided the student was working with a reputable employer. Group Training Companies could be quite useful as employers in the part-time apprenticeship program that can be integrated into VET in Schools curriculum. Each saw apprenticeships and traineeships as a real benefit to students due to access to employment.

Teacher and school attitudes and practices

Concern was expressed by each informant that teachers may give some students wrong advice given the lack of experience by many teachers in career education in general, and the majority of their colleagues displayed a particular bias. For example, the VET in Schools programs were generally seen as problematic for schools. More traditional teachers specifically saw apprenticeships and traineeships as equally problematic. Harriet added that part of her previous vocational experience involved attending schools to talk to students about the ATTP. According to two of the informants (Krystal and Harriet), however, *many career teachers and school principals considered that the ATTP was a poor option for their students. In circumstances where schools focus on VET programs and part-time apprenticeships in schools, they could run the risk of reducing the school's academic standing in the eyes of the community.*

Harriet considered that some careers teachers, and parents, were at times keen to encourage students to pursue the ATTP, however they appeared to be in the minority.

Don added that many companies from his experience now preferred a VET in Schools qualification, but this was at variance with the prevalent view among secondary school teachers.

Parents' attitudes and experience with the ATTP

The case study informants advised that parents clearly saw apprenticeships and traineeships as a threat to their offspring in the main, and identified the ATTP as a backward step. The informants were uniformly of the view that parent's views were frequently placing pressure on schools to maintain traditional education, despite their lack of knowledge about VET and the ATTP.

Student responses

Students were generally keen to participate in VET in Schools programs such as hospitality, information technology/multimedia and retail programs but remained loath to do so in the engineering sector. However with work experience in the various sectors, the students were beginning to obtain a crucially important vocational education. According to Don, with the added experience, many would choose to pursue the ATTP when leaving school and consider part-time study to further their careers at a later date, given their increased knowledge and ability to foresee the tangible benefits. Exposure was the key to this occurring, and commitment by employers. Work experience was seen as a valuable experience for students, particularly by Don. The overall experience enabled students to identify the parts of the school curriculum that was relevant to their needs, providing a heightened relevance within the school setting.

Curriculum issues

The departure from the traditional curriculum in years 10 and 11 had resulted in students adopting a more mature attitude to their part-time work, with training and part-time school life involving study, according to Don. Paul considered that part-time new apprenticeships or VET work experience assisted in this process. Students in part-time new apprenticeships or VET work experience are faced with adults who are very interested in their learning and skill development and participate encouragingly. This appeared to show renewed interest back at school in general, but specifically in some of the curricula where interest had previously waned (refer to the section headed 'Relevance of the curriculum'). Paul hoped that the experience might shed a new light on the students' strengths by the students themselves, their parents and perhaps the teachers. To Paul, part-time new apprenticeships in schools are an untested program, requiring more support within the curriculum and flexibility in the timetabling of classes to accommodate students' broader needs.

Policy issues

Paul expressed concern that insufficient staff resources are deployed by schools to organise valuable work experience and part-time new apprenticeships. Paul is enthused by work experience being obtained concurrently with the part-time new apprenticeship programs.

An added obstacle to new apprentices in schools or VET programs mentioned by Krystal was school timetables. Schools appeared to have difficulty administering a timetable to cater for students working part-time or undertaking a part-time VET program.

Each was of the view that the curriculum in secondary schools is not meeting the needs of many students in secondary education. Concerns were raised that their colleagues were poorly trained and unable to address the VET needs of students. *Paul and Krystal emphasised that many of their colleagues were not enthused by VET programs in secondary schools and required professional development to place it in context as a key need for many students.*

Don and Krystal were vehement in their views that teachers had limited knowledge of the new work environment. Don stressed that teachers conducting VET classes in certain fields such as cabinet making and engineering were doing so with a lack of recent industry experience.

The case study informants reflected the theorist's views on education and expressed concern that students were not accessing apprenticeships and traineeships as a viable career pathway - as one key option - where it was suited to their needs. Each informant stressed that comprehensive change was required on a wide front in secondary education to address student needs.

Comments and recommendations

The factors that mitigate against the uptake of apprenticeships and traineeships among secondary students are complex.

There is a significant level of symmetry between the views of the case study informants and those of the theorists quoted in this paper. From the observations by informants, a situation does exist where too many teachers lack the training, experience and understanding to support VET training as a valuable dimension within secondary education (Bickmore-Brand 1998). Significant change is needed within the secondary education system to assist students to prepare for an adult working life (Hargreaves et al 1996; Kirby Final Report 2000). Schools are facing the implementation of VET training packages and competency-based training without effective training (Bickmore-Brand 1998).

The question that arises is the extent to which schools are equipped to assess the skills of students and apply them broadly to labour market opportunities through VET programs, work experience or apprenticeships and traineeships, higher education or TAFE programs (Kirby Final Report 2000).

Teacher retraining

The integration and understanding of VET programs into secondary teacher undergraduate training is, given the above statistics and observations, crucial. For teachers already employed, improved professional development programs to assist student pathways are extremely important. A greater understanding of the relevance to students of this 'new' aspect of secondary education requires additional resources, and a renewed or developed understanding of which VET programs or traditional programs fit where in the labour market or industrial environment, and methods for their implementation (Kirby Final Report 2000).

The post-education programs are of considerable importance, but the numbers of students who are leaving school and experiencing non-participation in neither training, education or employment presents disturbing statistics for the society (Kirby Discussion Paper 2000). However not all students experience a secondary education curriculum that offers VET programs, and many have a lean choice of offerings. Too frequently schools, including government schools in impoverished areas, fail to see the benefits of the VET programs for their students. Industry experience is also a needed area of training to enable teachers to understand educational perspectives of VET programs including the ATTP, and the overall benefits that are attainable to students.

The increasing numbers of young people neither in full-time, part-time work or education suggests that secondary education is failing. The Kirby Review Discussion Paper (2000) states that career counselling in secondary schools and the development of school-to-work plans need to be fully integrated into the school culture. However, one of the key issues is a change in attitude by many teachers in regard to the VET in Schools programs and their view of non-academic students (Hargreaves et al 1996; Kirby Final Report 2000). A change of management and leadership is also required in the key state government bodies that administer education to drive the 'new' policies for post-compulsory students (Kirby Final Report 2000).

Key result area for schools

Not only should the numbers of students that progress to university or TAFE from school be seen as an important statistic, but also

- how long they remain
- whether they complete
- how many change courses
- the numbers of students who have been discarded by 'prestigious schools, the reasons why and what were the outcomes for these students'.

Other measures should include:

- how many of the other students obtained full-time work or obtained a position under the ATTP
- the percentage of students working part time
- the numbers unconnected to the labour market entirely
- longitudinal comparative studies between students who have participated and completed apprenticeships and traineeships, as opposed to persons in the same age cohort who have not.

These are thought-provoking benchmarks with the potential to evaluate schools and their effectiveness, rather than the ENTER score, which has become the prevailing yardstick - as inaccurate as the measure may be. These measures are needed to ensure that school curriculum focus is evaluated in a pragmatic non-traditional way to reflect issues that are occurring in the labour market and that affect young people directly and the society as a whole. Evaluating schools through the success on the ENTER ladder is displaying a traditional bias that may have been appropriate for a bygone era but is now plainly inappropriate and archaic (Hargreaves et al 1996; Kirby Final Report 2000; Teese 2000).

Changes needed in secondary education

Schools need support to inform students about future options for training and employment, acknowledging the swift changes that are occurring in the labour market inappropriate (Kirby Final Report 2000). To prepare students for a working life, career guidance within schools should assess the skills of the students, assist in the organisation of useful work experience or part-time apprenticeships or traineeships, and develop vocational and educational workplans to complement the overall strategy to steer appropriate vocational and educational pathways (Hargreaves et al 1996; Kirby Final Report 2000).

Where students do not benefit from the traditional school programs, other programs need development and support. For secondary education to address 'client servicing', teachers need to be trained to recognise that their key clients, the students, may need a non-traditional curriculum in many cases (Hargreaves et al 1996).

Collectively educating the community, parents, students and teachers about the value of apprenticeships and traineeships is particularly important (Kirby Final Report 2000). A comparative study of the success between higher education and ATTP graduates could form part of the career guidance role in schools aimed at parents and students. Longitudinal studies of this type may alter orthodox and biased views.

Jobs were once plentiful and the students were gaining employment. From the early 1970s this was no longer the case, and this placed a focus on the education system and its value in preparing the students for work. Clearly the secondary education sector has been too slow to respond to the challenges it needs to face, and the training and resources to address these challenges is also lacking (Hargreaves et al 1996; Kirby Final Report 2000).

Change and secondary education

The present secondary education curriculum is suited to the minority of students (Hargreaves et al 1996; Peoples 1998; Sweet 1998; Teese 2000). For secondary school teachers, a tension exists within the VET in Schools programs (including part-time new apprenticeships in schools). The program lends itself readily to a completely different mode of training unfamiliar to the traditional pedagogy secondary school teachers are familiar with, as well as many TAFE teachers (Smith et al 1997). Teachers require extensive training and a revised syllabus to be able to accommodate the differing educational needs of a school population that contains many students unsuited to the curriculum (Hargreaves et al 1996; Kirby Final Report 2000; Teese 2000). The situation has reached a point of urgency. This was evident in the responses from the case study informants and various theorists and reports (Bickmore-Brand 1998; Kirby Interim Report 2000; Smith et al 1997). Significant changes, funding and extra resources are required (Kirby Interim Report 2000; Kirby Final Report 2000; Teese 2000).

> Little will be achieved unless teachers and other professionals support changes to be considered in the final report of the Review. Submissions to the Review have indicated the difficulties that teachers and instructors face in shaping courses for their students and trainees. Many complained of the difficulties in getting access to information. Submissions also

> indicate the considerable demands upon teachers, administrators, industry personnel and support staff in developing and implementing new programs such as Vocational Education and Training in schools.
>
> The post compulsory phase also brings new demands for creating links between schools, TAFE institutes, and other providers of programs, as well as links with industry. There are the further demands of new course areas, some of which have specific professional training and industry experience requirements set down by industry bodies. The Review Panel is also conscious of the need for more relevant pre-service training for people working in post compulsory education and training.
>
> Some of the approaches that will need to be examined are:
>
> - Programs that incorporate all professionals: teachers, principals, instructors, workplace supervisors and mentors
> - Programs that link education and work
> - Ongoing access to relevant information
> - Reforms in pre-service training for teachers and instructors
> - Support for industry-based and program support personnel
> - More flexible approaches that allow access to training and information on a needs basis.
>
> (Kirby, Interim Report 2000, pp 18-19)

The Kirby Interim Report (2000) referred to the state of post-compulsory education as an 'indictment' on the education system and society, given the obvious failings that are generating problems for young people and the potential damage that is destined to reverberate through the society and economy. The problems of the teachers are exacerbating the problems of the students. It is clear that retraining of teachers is essential and that training must include a change in thinking and the incorporation of training for parents, students and industry within planned strategic alliances. The syllabus is key driver of many of the problems. Teese holds the syllabus writers responsible for making the job of teachers that much harder by providing a curriculum that does makes it difficult to engage a different and numerically expanded cohort of students that find themselves in year 12 and facing subject matter that fails to meet their needs in large numbers (Kirby Final Report 2000; Teese 2000). Added to this, a changed labour market fails increasingly to absorb young people as full-time workers (Sweet, 1998) and yet the education system has to be revised with policies to address the enormous problems that have been accruing since the early 1970s (Hargreaves et al 1996).

Consequences for society

> An incapacity of groups of young people to access education and training because of poor preparation, structural barriers or lack of motivation is likely to be detrimental to their livelihood and their relationships with society. (Kirby Discussion Paper 2000, p 2)

The statistics presented in this paper demonstrate that full-time employment with training is not being taken up by large numbers of young people exiting education, and yet the ATTP can provide full-time work with training and a nationally recognised qualification. 'Secondary education and training can contribute enormously to the economic and social prosperity of individuals, communities and the nation' (Kirby Discussion Paper 2000, p 2). Secondary educators and the community have a responsibility to provide education, training and work for all of its members including those of a work age less than 19 years (Kirby Discussion Paper 2000). The numbers of students who have experienced poor educational outcomes calls into question the role the secondary education system has played (Kirby Interim Report 2000).

Information is emerging that paints a different picture of the pathways young people are taking to find employment (Kirby Interim Report 2000). The problems faced by young people in terms of education and work have prevailed for nearly three decades (Hargreaves et al 1996; Kirby Final Report 2000). In Victoria this research demonstrates a disturbing picture for many young people and the society as a whole. The situation may be addressed by practical policies and the use of LLENS, which are independent bodies that are likely to involve local communities, industry, local government, welfare groups and the education sector to formulate plans and strategies to address the vocational and educational needs of young people. Whilst LLENS may be connected to schools, they are guided by an external board that is reflective of the community. This may allow sufficient autonomy, to avoid the dictates of those influences within secondary schools that fail to change the syllabus sufficiently to better assist students, particularly those who need a different curriculum to the traditional fare.

It may well be arguable that orthodox views on what is occurring for young people are not necessarily matched by reality.

> The time boundaries of these pathways are difficult to define. The Review Panel is aware that the time taken by young people to achieve full-time employment is variable, and is growing. Recent international estimates are that young people in Australia now enter full-time employment at the age of 24, on average a period of eight years.
> (Kirby Interim Report 2000, p 3).

There would appear to be a number of statistics that require additional research. With the average age of persons obtaining a permanent position being 24 years in Australia, both secondary and tertiary education must be questioned. The secondary education sector appears to fall down in creating direct vocational links for students not aiming for tertiary education, and for students who may attend university or TAFE.

> There is evidence that young people are not being provided with skills that they will need in the future. Recent survey results show that employers view most TAFE and University graduate job applicants as unsuitable because they do not have the capacity to think critically and problem solve. An international survey shows that Australia's high school completers are not as proficient as other, similar OECD countries in demonstrating higher order thinking and information processing skills. Another study reports a high drop out rate for University students. The students themselves report low levels of satisfaction with a range of aspects of post compulsory education
> (Kirby Interim Report 2000, p 4)

Conditions preventing the uptake of apprenticeships and traineeships among 15-19 year old school leavers

The research shows that secondary education prepares students poorly for the labour market. Even though secondary schools place enormous emphasis on ENTER scores, too many students are ill prepared for university (Kirby Interim Report 2000).

The research also demonstrates that the mitigating conditions stem from a well entrenched bias to graduating from university that is fuelled mainly by students, parents, the secondary education system and by the selection processes of universities and their influence over secondary school curriculum (case study observations; ANOP Research Services Pty Ltd 1994; Hargreaves et al 1996; Kirby Interim and Final Reports 2000; Teese 2000). The factors that motivate this bias may include the attraction of becoming a university student and the associated (in some cases) prestige. The notion that university is the step that guarantees material and personal wellbeing may in many cases be incorrect (Peoples 1998). In some cases this may well be the case, particularly in high prestige 'ticket' courses at university such as physiotherapy, medicine, law, architecture, clinical sciences, veterinary science and elite business management courses (Teese 2000). The source of students for these courses is mainly from prestigious private schools and it is this sector that has an integrated traditional education philosophy that reflects the prestigious universities, thus sustaining the social pattern (Teese 2000).

However, the community needs to be educated into alternative vocational and educational strategies to benefit individuals and the society at large and attempt to portray issues youth are facing in 'reality' (Kirby Final Report 2000; Teese 2000). The majority of students do not go to university (Sweet 1998), a university degree does not guarantee employment (Peoples 1998), and almost 30% of university students change their courses or withdraw (Kirby Final Report 2000). On a national basis, only 30% of all school leavers go directly to higher education (Sweet 1998). Older persons are now more common in VET courses and recognise the value to their careers of studying TAFE programs (Woden 1999). VET is post-secondary education that is directly linked to the needs of business and industry. VET courses are based around the actual skills needed to work within each industry sector. It is clear that greater emphasis needs to be placed on TAFE programs through closer connections between the secondary education sector and TAFE. Peoples (1998) refuted the idea that the education of students to year 12 would result in a university education and questioned whether a degree provided an automatic pathway to employment. To Peoples (1998) this was a questionable proposition. The validity of year 12 guaranteeing a path to university simply does not occur. Of the Australian students who left school after year 12 in 1996, 44% gained university entrance the following year – less than half. Of the total school leavers in 1996, less than 30% gained entrance the following year (Ainley 1998; Peoples 1998).

The results of an education system - that it can be argued is askew from the needs of many of its students (Hargreaves et al 1996) - have seen a sustained deterioration in adolescents' participation in the labour market, although this does not entirely come down to the education sector. In the face of this social 'indictment', a failure within education to change sufficiently to address a problem is now pronounced, even though it has been obvious for three decades. It is now of crucial importance to ensure that learning and development in terms of the real educational needs for adolescents is attended to through carefully and professionally developed vocational planning. The important issue is to retrain secondary and tertiary educators assisting post-secondary school adolescents and objectively develop the pathway plan for students, by involving the parent(s) and the student in understanding the rationale, and by documenting the information. A vocational strategy needs to be outlined, taking into account the student's capabilities and a possible pathway in the workforce and in ongoing education as an option to sustain or develop a career.

The surge in adults undertaking the ATTP and the destination of students undertaking VET in Schools implies that government policy is failing. At the end of December 1998, 24.9% of ATTP participants were aged 20–24 years, 44.4% were aged 25 years or more and 30.7% were in the 15–19 age group (Australian Apprentice and Trainee Statistics 1998). At the end of September 2000, 25.5% of ATTP participants were aged 20–24 years, 45.4% were aged 25 years or more and 29.1% were in the 15–19 age group (Australian Apprentice and Trainee Statistics 2000). Clearly apprenticeships and traineeships for adults is increasingly being found as an attractive vocational pathway.

Apprenticeships and traineeships must be as prominent in the thinking of vocational counsellors as is higher education. The responsibility now is to work systematically to rectify faults in an education system, ensuring that students are confident the curriculum has relevance to the skills they possess and presents an identifiable bridge to their adult vocational lives. The inadequate assistance provided by secondary education at least for the last thirty years for too many adolescents must be rectified, with sound training and development for educators, and those who provide vocational guidance.

This research had a simple core question: why are young people not being encouraged by schools, their parents to undertake apprenticeships and traineeships? There is a majority of young people being professionally socialised by forces beyond their control (Teese 2000). This involves an antiquated curriculum steered in a certain direction that may be appropriate for the minority, but serves the needs of universities that also have an archaic and questionable curriculum and pedagogy according to Teese (2000). Despite many students (if not most undertaking VCE) being more suited to the ATTP at their stage of life (and this does not mean forever, as some people are more suited to tertiary study as mature adults), barriers and obstacles mitigate against a pathway to the ATTP. This occurs despite substantial rewards that can result from trade and traineeship areas. An articulation pathway is accessible in the vast majority of apprenticeship and traineeship programs to diplomas, degrees and beyond. Within the apprenticeship and traineeship program, real possibilities are available to break the limits that Teese suggests exist in the workforce and education system where 'limits on the diffusion of economic and cultural benefits (are accessible but) … prevent the dilution of quality and protect a narrow social enjoyment, which amounts to the same thing' (Teese 2000, p 1).

> Until the late 1980's the emphasis was always on improved knowledge in the syllabus, not improved learning in the student. (Teese 2000)

When a secondary education system rewards a student for their trade or other capabilities on an equitable basis to a contemporary student well-versed in the traditional secondary school offerings such as mathematics, languages, literature, physics, history and chemistry, then the truly educative society will result and the scales will be balanced in education to benefit individuals and society.

The secondary school curriculum and its connection to the world of work is failing too many young people. This leads to the final words by Teese, which state the case with accuracy and conciseness.

> If the curriculum is a test of students, what is a test of the curriculum? Is it the ever-greater depth of understanding that describes the evolution of academic subjects? Or is it the ever greater social spread of learning without which societies cannot cohere democratically, and without which theory must remain the servant of privilege? (Teese 2000, p 9)

References

Ainley J (1998) Australia's youth: reality and risk. Dusseldorp Skills Forum.

ANOP Research Services Pty Ltd (1994) Young people's attitudes to post-compulsory education and training. Australian Government Publishing Service.

Australian Apprentice and Trainee Statistics (1998) vol 4, no 6, October-December. National Centre for Vocational Education Research.

Australian Apprentice and Trainee Statistics (2000), vol 6, no 3, July-September 2000. National Centre for Vocational Education Research.

Australian National Training Authority (2000) http://www.anta.gov.au/ (accessed 16 August 2000).

Ball S (2000) The Age, January. http://www.theage.com.au/education/index.html.

Bell J (1987) Doing your research project: a guide for first time researchers in education and social science. Buckingham: Open University Press.

Bickmore-Brand J (1998) Schools seek closer relationship with TAFE colleges and universities in new vocational focus. Literacy Now, no 11 (May/June). http://www.detya.gov.au/publications/lit_now/ln1998/acal.htm.

Buckman P (1973) Education without schools. Souvenir Press Ltd (educational and academic).

Carmichael L (1992) The Australian vocational certificate training system. Canberra: National Board of Employment, Education and Training.

Crowl T K (1996) Fundamentals of educational research. US: Brown and Benchmark.

Department of Education, Employment and Training (Victoria) (2000) http://www.otfe.vic.gov.au/index.htm (accessed 16 August 2000).

DETYA Annual Report (1996) http://www.detya.gov.au/publications/annual_reports/9596/p3.htm (accessed 8 March 2000).

Finn B et al (1991) Young people's participation in post-compulsory education and training. Canberra: Australian Government Publishing Service.

Gardner H (1984) Frames of mind. Theories of multiple intelligence. New York: Heinemann.

Glesne C and Peshkin A (1992) Becoming qualitative researchers: an introduction. White Plains, New York: Longman.

Gude P and Honeywood P (1999) Joint ministerial statement VET in schools, achievements and future directions. Victorian Government.

Hammersley M and Atkinson P (1992) Ethnography principles in practice. London: Routledge.

Hargreaves A (1994) Changing teachers, changing times. London: Cassell Villiers House.

Hargreaves A (1989) Curriculum and assessment reform. Buckingham: Open University Press.

Hargreaves A, Earl L and Ryan J (1996) Schooling for change, reinventing education for early adolescents. London: Falmer Press.

Jaeger R M (ed) (1988) Complementary methods for research in education. Washington: American Educational Research Association.

Kell P (1996) Creating a disposable workforce. New equalities in work training and education. Education Australia, no 34.

Kirby P E F (Chairman) (1985) Report of the Committee of Inquiry into Labour Market Programs. Canberra: Australian Government Publishing Service.

Kirby P (2000) Ministerial review of post-compulsory education pathways. Discussion Paper, Department of Education, Employment and Training, Victoria. http://www.eduvic.vic.gov.au.

Kirby P (2000) Ministerial review of post compulsory education pathways in Victoria. Interim Report, Department of Education, Employment and Training Victoria.

Kirby P (2000) Ministerial review of post compulsory education pathways in Victoria. Final Report, Department of Education, Employment and Training Victoria.

Lincoln Y S and Guba E G (1985) Naturalistic inquiry. California: Sage Publications Inc.

Mayer E (1992) Putting general education to work: the key competencies report. Australian Education Council and Ministers (Australian Education Council. Mayer Committee).

Minichiello V, Aroni R, Timewell E and Alexander L (1995) In-depth interviewing. Australia: Longman.

Montague A J (2000) What are the mitigating conditions that prevent the uptake of apprenticeships and traineeships among secondary school adolescents in Victoria? Unpublished Master of Education Thesis, RMIT University, Melbourne.

Morrow A et al (1994) Public investment in schools education: costs and outcomes, 1994. Paper presented at a conference sponsored by the Schools' Council and the Centre for Economic Policy Research, Australian National University, Canberra, 17 March.

Papadopoulos, G S (1994) Education 1960–1990: the OECD Perspective. Paris: OECD Publications.

Peoples, K (1998) Who will stand with the young: the place of vocational education and training in post secondary education. Discussion paper. Australian Education Union.

Polesel J, Teese R, O'Brien K and Unger S (1998) VET in schools. A study of post-schooling destinations. Department of Education, Victoria.

Rosenman L (1996) The broadening of university education: an analysis of entry restructuring and curriculum change options. http://www.detya.gov.au/highered/operations/eip9612.htm (accessed 1 October 1999).

RMIT University (2000) (Melbourne) http://www.new-apps.rmit.edu.au/ (accessed 16 August 2000).

Ryan R (1997) Vocational education in schools. Adelaide: National Centre for Vocational Education Research.

Schofield K (2000) Review of the quality of training in Victoria's apprenticeship and traineeship system. Discussion paper. http://www.otfe.vic.gov.au/new/Schofield/index.htm (accessed 8 March 2000).

Schools Commission (1980) Schooling for 15 and 16 year olds. Canberra: Schools Commission.

Shor I (ed) (1987) Freire for the classroom. Portsmouth, New Hampshire: Boynton/Cook (a division of Heinemann).

Smith E, Lowrie T, Hill D, Bush T and Lobegeier J (1997) Making a difference? How competency-based training has changed teaching and learning. Charles Sturt University.

Stake R E (1995) The art of case study research. California: Sage Publications Inc.

The Sunday Age (2000, 9 April).

Sweet R (1998) Australia's youth: reality and risk. Dusseldorp Skills Forum.

Sweet R (1998) Australia's youth: reality and risk (overview chapter). Youth: the rhetoric and the reality of the 1990s. Dusseldorp Skills Forum.

Van Manen M (1990) Researching lived experience: human science for an action sensitive pedagogy. The State University of New York.

Varlaam C (1984) Rethinking transition: educational innovation and the transition to adult life. East Sussex: The Falmer Press.

Wiltshire K et al (1994) Shaping the future: review of the Queensland School Curriculum. Brisbane: QGPS.

Woden M (1999) Impediments to the employment of young people. Kensington Park, South Australia: National Centre for Vocational Education Research.

Links

SOFWEB - http://www.sofweb.vic.edu.au/
(accessed 16 August 2000).

Board of Studies Victoria - http://www.bos.vic.edu.au/
(accessed 16 August 2000)

RMIT University Website Pathways – a career planning guide.
http://www.admissions.rmit.edu.au/pathways/index.html (accessed 5 June 2000).

Contact details

Alan Montague
RMIT University
Ph: +61 3 9925 3828
Email: alan.montague@rmit.edu.au

Translating practice into research: how we have come to define and structure 'vocational' education

Gavin Moodie

Victoria University of Technology

In this paper, I start with a problem arising from our practice in Australian vocational education and training, which I suggest is the source of some difficulties in inter-sectoral relations. I examine that practice in some detail, and then seek lessons from vocational education and training in two other federations – the US and Canada.

The problem

In a paper tellingly titled 'university-TAFE collaboration: the kiss of death?' a leading technical and further education practitioner and expert Professor Kaye Schofield said (1998, p 5):

> In a country where there are probably too many universities, and where economies of scale and scope will become of increased importance, universities are looking for survival strategies. Absorption of TAFE institutions into universities might not do much for economies of scope but certainly will do a lot for economies of scale. ... No matter how much such thinking is dressed up, the bottom line is competition. Universities are the timber wolves and ... they hunt in packs. TAFE institutions are the deer.

Schofield said this at a conference hosted by the Northern Territory University, one of Australia's dual sector universities with substantial higher education and vocational education and training programs. Two years later, at another dual-sector institution (Victoria University of Technology), Schofield reiterated the point, although not in the same terms (2000).

Schofield was speaking when several Victorian TAFE institutions were indeed being absorbed into universities (Ramler 1997), in two cases substantially improving the senior institutions' survival prospects. The TAFE sectors are clearly subordinate in all five Australian dual sector institutions, perhaps even subordinated by their higher education colleagues. Yet the vehemence of Schofield's view and that of many of her colleagues invites explanation, particularly since it seems to ignore the experience of the TAFE divisions of RMIT and Swinburne University, neither of which seems weaker for having been part of a dual sector institution for a century more or less in each case.

Compare the relationship between the TAFE and higher education sectors of tertiary education with the relationship between the health vocations nursing and medicine. Some leading nurse practitioners and academics argue against including nursing in the same academic organisational unit as medicine because it is likely to stifle nursing's development as a discipline and independent vocation, since it simply transfers into the academy nursing's subjugation to medicine in the workplace.

(Incidentally, at the University of Adelaide, a short stroll from this conference, clinical nursing seems to be flourishing as a department within the school of medicine.) But the nursing critics' opposition to being located in the same organisational unit as medicine never seemed as strident as TAFE's opposition to being located within dual-sector institutions.

One possible explanation for TAFE's defensiveness in its relationship with higher education is its lack of a secure identity (Gooze 1993, p 6). However much nursing may be subordinated by medicine in wards and on campus, noone doubts that nursing will endure as a vocation and as a discipline. But arguably TAFE practitioners and scholars are much less confident of TAFE's survival because of its lack of a secure identity.

In a paper descriptively titled 'Chameleon or phoenix: the metamorphosis of TAFE', Damon Anderson charted the changes in Australian TAFE's identity 'which to date have threatened TAFE's survival as a distinct sector of education and training' (1998, p 1). This followed Murray-Smith's authoritative observation that 'the "received" definitions of technical education change radically from one era to another' (1965, p 170).

TAFE has lacked a secure identity since its foundation by the Kangan committee.

Kangan's contribution

The Kangan committee established a mission for TAFE in Australia from the mid-1970s to the mid-1990s, which is still influential in shaping the scope and values of technical and further education. But Kangan did not define an identity for the sector, as it itself acknowledged. The opening sentence of the committee's report describes its role and that of TAFE residually - that left over from the other sectors (Kangan 1974, p xxvi) -

> The concept central to this report is the provision of unrestricted access to post school education through government maintained or administered institutions not already assisted through the Australian Universities Commission or the Australian Commission on Advanced Education.

That sentence is from Kangan's summary. Kangan sets out its full argument on this point, such as it is, in the first four paragraphs of its substantive report (1974, p 2) -

> 1.1 The pattern of post secondary education in government administered or maintained institutions consists of universities, colleges of advanced education, technical colleges, adult education centres and like institutions.
>
> 1.2 Technical and further education is available from all of these institutions. Thus, for example, the intensive vocational training of technologists - such as engineers, dentists, physicists and medicos - by universities, contradicts the general impression of universities as being ivory towers of liberal study and research: it destroys the myth, too long perpetuated, that a university education necessarily excludes vocational training as one of its aims.

> 1.3 It is much easier to pick out the broad category of education to which vocational education belongs, than it is to draw precise dividing lines between it and other categories.
>
> 1.4 This committee is concerned, however, only with the relevant government institutions not covered by the Australian Universities Commission and the Australian Commission on Advanced Education.

The committee acknowledged interest in a precise definition of TAFE (1974, p 5) but 'it believes that it is beyond human capacity to devise a precise definition of technical or further education that would stand the test of time' (1974, p 6).

More recently, of course, the State and Commonwealth ministers responsible for TAFE have vigorously sought to narrow TAFE to vocational education, since further education is said to divert TAFE from its primary purposes of supporting economic development. The ministers have also sought to re-orient TAFE from Kangan's strong commitment to the interests of students as citizens as well as employees, to serving employers as its primary clients - thus incidentally returning TAFE to its orientation before Kangan, which Kangan so cogently criticised.

So when higher education institutions start using the rhetoric of vocationalism, when they adopt some of the techniques of workplace-based education from TAFE and when they express a commitment to serving employers' needs, they seem to be taking over all of TAFE's indicia. The last remaining distinctive characteristic of TAFE seems to the level of its awards specified by the Australian qualifications framework. But even that is being taken over by higher education institutions which are absorbing TAFE institutes or registering as TAFE-level training organisations in their own right.

Perhaps vocational education could found its identity on some other characteristic.

Attempts to define 'vocational' education

Defining 'technical' or 'vocational' education has been a longstanding problem. 120 years ago, T H Huxley lamented that 'it passes the wit of man, so far as I know, to give a legal definition of technical education' (1877). Arguably, Huxley would observe that we have made little progress in the ensuing century.

As a training of the hand rather than an education of the mind

One of the earliest descriptions of 'technical instruction' is as the training of the hand, which is contrasted with the education of the mind (Magnus 1881, p 26). While no one would propose such a crude Cartesian dualism now, many descriptions of vocational education tacitly propound a more subtle mind/body distinction.

In contrast to general education

Another early understanding of vocational education was that it was specialist, and in particular technical, in contrast to general education (Wilkinson 1970, p 133 quoted in Hyland 1989, p 27). But this is hardly satisfactory since much of higher education is very specialised indeed.

In contrast to liberal education

Williams (1970) argues that the 'inner logic' of university and advanced education provides a 'functional differentiation' between them; between university education's intrinsic value and vocational education's instrumental value (quoted in Hermann et al 1976, p 187). Ashby proposes a similar distinction between *Bildung* - liberal education - and *Ausbildung* - vocational training. But Ashby observes a major difficulty with such a distinction, at least put simply (Ashby 1974, p 135) -

> Notice that this distinction cuts across some familiar boundaries. It puts into the same category the education provided by the faculty of medicine at Cambridge and by the department of catering at Colchester Technical College: and it puts into the same category Oxford Greats and Workers' Education Association courses on archaeology.

Notwithstanding the ahistorical claims that Australian universities' vocationalism is a modern betrayal of their supposed non-utilitarian virtues (Symes 1999), Australian universities have been understood since the 1860s to be distinctly vocational (Hyde 1983, p 108) if not 'exceptionally utilitarian or vocational' (Partridge 1973, p 129). So simple vocationalism has not been sufficient to found technical education's distinctiveness (Kangan 1974, p 2).

As practical, applied education

A distinctiveness proffered by Williams was that technical education was practical, in contrast to university education which was by implication (more) theoretical (1963, p 112) or academic. At other times Williams rests the distinctiveness of technical education on its applied nature in contrast to university education, which was by implication more 'pure' (1965, p 75). But again, this is not an accurate contrast with contemporary higher education.

By educational level

An obvious definition of vocational education is by educational level and this has been attempted in the US as elsewhere (Medsker and Tillery 1971, p 60). Quebec's general and vocational colleges (*collège d'enseignement général et professionnel*) sit distinctively between secondary and university education, since it is not possible to proceed from school to university without first completing the CEGEP's diploma of collegial studies (*diplôme d'études collégiales*) (Quebec 2001). However, this neatness is unusual.

More commonly there is equivocation, first, over whether vocational education is truly tertiary education (Jakupec and Roantree 1993, p 151). Many vocational courses assume an educational level of year 10, which suggests that at least many vocational courses are secondary in level (Murray-Smith 1965, p 186). This leads some to argue that vocational education should be defined by students' achievement upon their exit rather on their entry to the sector (Williams 1965, p 71), but this is hardly satisfactory.

Vocational education's reach has also been contested at the upper level. Following adoption of the Kangan report, there was a contest between TAFE and the advanced education sector over associate diploma-level qualifications (ACOTAFE 1975, p 109), which advanced education won (Gooze 1993, p 7; TAFE Commission 1976, p 100). Now the Australian qualifications framework has an overlap between TAFE and higher education in responsibility for diplomas and advanced diplomas (AQF 2001).

By occupational level

Vocational education is also commonly defined by derivation from the occupational level of its graduates (Moorhouse 1960, p 176; Haslegrave 1969, p 3; Hermann et al 1976, p 6; Murray-Smith 1965, p 189). This has in turn been related to class (Anderson 1998, pp 6-7; Hyde 1982, p 121). Williams provided one of the most finely graded classifications (1961, p 103) -

(i) trade
(ii) post trade
(iii) technician (production-maintenance)
(iv) technician (research design)
(v) professional
(vi) post professional

But the category of 'technician' was considered problematic, and Moorhouse (1960, p 178) and Williams (1961, p 101; 1963, p 92) clarify its categorisation carefully. While both authors believed that these occupational levels described the province of technical education, Moorhouse deprecated as 'a dangerous over-simplification' the ascription of institutional roles to occupational levels (1960, p 183).

Not elsewhere included

Australia was not alone in defining vocational education as 'not elsewhere included'. A commentator in the *Times Higher Education Supplement* said that 'the further education sector may be described as the "ragbag" into which are deposited courses not provided elsewhere' (THES 1973, p 1), and Parkes describes Britain's further education sector as filling the gaps not filled by alternative sectors (1991, p 42).

Perhaps we may get some guidance from overseas practice, and I examine aspects of vocational education in two other federations – the US and Canada.

Vocational education in the US

It would be misleading to describe higher education in the US as being a 'system', since the federal government has a very limited role and there is considerable variation between states and diversity within them. However, a fair generalisation is that US citizens start their post-secondary education in one of two broad types of institutions. Those who complete their high school diploma with a grade point average in the top 30% or so (see, for example, CU-Boulder 2001), or those who gain a comparable score in one of the national scholastic aptitude tests may gain entry into an institution that we would recognise as a university, although it might be called a 'four-year college' or 'baccalaureate-granting college'.

There is great variety in the orientation, standing and size of these institutions, ranging from the famous comprehensive research and doctorate granting institutions to institutions that are similar to Australia's former colleges of advanced education in offering baccalaureates and coursework Masters degrees, but not research degrees (see, for example, USC 2001). But most seem to have been founded on the paradigm of four years' full-time residential study for a first undergraduate degree immediately following high school.

Students who don't have a strong scholastic record or who want to study locally in a place that does not have a university within community distance can do the first two years of their baccalaureate course at a community college. After completing their associate of arts or science (see for example Pueblo Community College 2001) with a grade point average of 2.0 to 2.5 out of 4, these students may transfer with full credit towards the four-year baccalaureate offered by a middle-ranking comprehensive university (see for example CU-Colorado Springs 2001), and a higher grade point average will gain them entry to a more selective comprehensive research university (see for example CSU 2001).

Grubb notes that the institutions in the United States that educate and train people for employment have grown in number and complexity over the past 30 years. The traditional locus of vocational education has been high schools, but secondary vocational enrolments have declined substantially. Increasingly, vocational education takes place in post-secondary institutions including community colleges, technical institutes, and area vocational schools (Hermann et al 1976, p 16). Various federal special purpose labour force and welfare programs have proliferated providers (Grubb 1996, p 30).

US community colleges typically have two functions, then: providing vocational education and proving transfer programs for those seeking entry to four-year colleges or universities. Thus Red Rocks Community College (2001) in Denver, Colorado offers four degree programs –

AA - Associate of Arts (transferable)
AS - Associate of Science (transferable)
AGS - Associate of General Studies (pre-professional transfer or occupational)
AAS - Associate of Applied Science (occupational).

It also offers some 50 certificate programs in areas such as aviation technology, bookkeeping, criminal justice, early childhood, electrical, information technology, nurse aide/home health aide, park ranger technology, plumbing and video production.

However, many community colleges offer no apprenticeships and few trade courses. Of Colorado's 13 community colleges, only four offer apprenticeships. Most of Colorado's community colleges offer what are often called 'occupational' courses, but in other States community colleges' vocational programs are largely restricted to what we would call para professional courses.

Grubb reported a widespread sense amongst employers of the job-related education and training system being chaotic and fragmented (1996, p 57). This is because occupations are largely unregulated – licensing requirements are quite rare outside of health occupations (Grubb 1996, p 57). Even in Colorado, which is one of the more regulated states, there is no licensing requirement and in many cases no apprenticeship for bricklayers, car mechanics, carpenters, fitters and turners, painters and decorators, or riggers (DORA 2001).

Since experience, informal job tests, and on-the-job probation count much more than educational qualifications in hiring permanent employees (Grubb 1996, p 60), educational institutions have a much lesser role in providing access to semi skilled and skilled occupations. Formal college qualifications are held by only 45% of dental hygienists, 34% of drafting occupations, 30% of registered nurses, and 21% of electronic repairers (Grubb 1996, p 66).

Instead, large employers and employer groups develop their own company training programs for skilled workers, sometimes cooperatively with colleges, but often entirely in house (Fawcett 1965, p 255). Thus, General Motors, Ford, Toyota, Chrysler, Nissan and the recreation vehicle industry association run apprenticeship and post-apprenticeship programs (Cantor 1993, pp 98-99).

Vocational education in Canada

While the US federal government has a very limited role in higher education, it at least has an office of post-secondary education; the Canadian federal government has no department of education let alone a department of higher education, and no broad federal policy for higher education (Jones 1994, p 222). There is therefore considerable variation in tertiary education arrangements between provinces - at least as much as between the US states - but perhaps less variation within provinces.

One national characteristic, however, has been the traditional practice of importing rather than training skilled workers (Ashton et al 1991, p 236; Dennison and Gallagher 1986, p 11). This has limited the development of vocational education in most provinces (Ashton et al 1991, p 237).

Australian and British observers would find the most familiar arrangements for vocational education in Alberta. There the apprenticeship system is still strong, with the off-the job training provided by community colleges and the two technical institutes (Alberta Learning 2001). However, firms normally offer apprenticeships to staff who have completed a probationary period within the firm, so typically apprentices in Alberta are much older than their counterparts in Australia and Britain (Ashton et al 1991, p 238). Alberta's community colleges also have the college transfer function similar to US community colleges, but unlike any Australian institution.

The apprenticeship system is still vigorous but in fewer trades in Ontario. Off-the-job training for apprentices and sub-degree level vocational education is provided by Ontario's 25 colleges of applied arts and technology (Jackson 1971, p 40). CAATs are not comprehensive colleges - they do not prepare students for transfer to four-year colleges (Medsker 1972, p 80). They are therefore the closest North American analogues to Australia's TAFE colleges.

Admission to Quebec's universities is after completing a diploma of collegial studies (*Diplôme d'études collégiales*) at one of Quebec's 48 general and vocational colleges, known as CEGEPs (*collège d'enseignement général et professionnel*). Thus the CEGEPs have the most secure position of non-baccalaureate institutions we have examined, since they have a distinctive place between secondary and university education. But as their name suggests, CEGEPs have the dual transfer and vocational roles familiar in US community colleges.

British Columbia has essentially reproduced the Californian model (Harman 1978, p 116) which segments higher education between highly selective comprehensive research universities, moderately selective four-year universities and open access community colleges that offer both transfer and vocational programs.

There are yet other arrangements in Canada's vast but sparsely populated prairie provinces, and different arrangements yet again in the small Atlantic provinces. Such is the diversity of arrangements, that Dennison and Gallagher suggest that it may have been a strategic error to call the new post-secondary institutions 'colleges' because that term had been used to identify so many different kinds of institutions; indeed, the term had become so imprecise as to be almost meaningless (1986, p 142). Another observer argued that 'the non universities will fail us if they evolve only as carbon copies of the past or as institutions that zig and zag with the opportunism of the moment. A firm self concept is essential to their promising new role in society' (Clark 1971, quoted in Medsker 1972, p 79).

Conclusion

Neither an analysis of various definitions of vocational education nor an examination of the arrangements in some US states and Canadian provinces provides an entirely satisfactory role for Australia's vocational education and training institutes. Most of the comparable North American institutions offer the first two years of the four-year baccalaureate awarded by universities. There has been some interest in establishing institutions with a similar role in Australia (Harman 1978), but the benefits from such a development don't seem great enough to compensate for the extensive restructuring of the existing sectors that would be required.

The most similar bodies to Australia's TAFE institutes considered are Ontario's colleges of applied arts and technology. These provide a useful comparator for Australian vocational education, but they are unusual in North America and thus are a limited example for TAFE's identity.

References

Alberta Learning (2001) Post secondary institutions http://www.learning.gov.ab.ca/college/postsecsystem/postsecinst/postsecinst.asp

Anderson D (1998) Chameleon or phoenix: the metamorphosis of TAFE Australia. New Zealand Journal of Vocational Education Research, vol 6, no 2, pp 1-43.

Ashton D N, Maguire M J and Sung J (1991) Institutional structures and the provision of intermediate level skills: lessons from Canada and Hong Kong. In R Paul (ed) International comparisons of vocational education and training for intermediate skills. London: The Falmer Press.

Australian Committee on Technical and Further Education (M Kangan, chair) (1974) TAFE in Australia. Report on needs in technical and further education. Australian Government Publishing Service: Canberra.

Australian Committee on Technical and Further Education (1975) TAFE in Australia. Second report on needs in technical and further education. Australian Government Publishing Service: Canberra.

Australian Qualifications Framework (2001) Twelve AQF qualifications http://www.aqf.edu.au/twelve.htm.

Cantor J (1993) Apprenticeship and community colleges. Lanham: University Press of America.

Cantor L (1989) Vocational education and training in the developed world. A comparative study. London: Routledge.

Colorado State University (CSU) 2001 Undergraduate application information for transfer students. http://www.colostate.edu/Depts/Admission/infotr.html#ADMISSIONSREQUIREMENTS.

University of Colorado at Colorado Springs (2001) CU-Colorado Springs on-line transfer guide. http://web.uccs.edu/transfer/admissio.htm#Admission Requirements.

CU-Boulder (2001) Academic profile - new freshmen by college. http://www.colorado.edu/admissions/profile.html.

Colorado Department of Regulatory Agencies (DORA) (2001) Occupational and professional licensing. http://www.dora.state.co.us.

Concordia University (2001) Admission requirements. http://websis.concordia.ca/htm/requirements.htm.

Dennison J D and Gallagher P (1986) Canada's community college. A critical analysis. Vancouver: University of British Columbia Press.

Gooze G (1993) The development of TAFE in Australia. An historical perspective. Kensington Park, South Australia: National Centre for Vocational Education Research.

Grubb N W (1996) Learning to earn all over again: current issues in vocational education and training in the United States. In C Selby Smith and F Ferrier (eds) The economic impact of vocational education and training. Australian Government Publishing Service: Canberra, pp 30-85.

Harman G S (1978) The North American Community College and Australian higher education. The Australian Journal of Education, vol 22, no 2, pp 113-130.

Haslegrave H L (1969) Report of the committee on technical courses and examinations London: HMSO.

Hermann G D, Richardson E and Woodburne G J (1976) Trade and technical education. Principles and issues. Stanmore, New South Wales: Cassell Australia.

Huxley T H (1877) Technical education. Collected essays III.

Hyde J (1983) The development of Australian tertiary education to 1939. In S Murray-Smith (ed) Melbourne studies in education 1982. Parkville: Melbourne University Press, pp 105-140.

Hyland T (1999) Vocational studies, lifelong learning and social values. Investigating education, training and nvqs under the new deal. Aldershot: Ashgate.

Jackson H W (1971) Structure of post secondary education in Ontario. In F C Theiemann, (ed) Environments and paradigms. Factors affecting the establishment of a Canadian association of community colleges and patterns of resolution. Edmonton: Canadian Commission for the Community College (Toronto) and Department of Educational Administration, University of Alberta.

Jakupec V and Roantree B (1993) Impact of the Martin report on technical and further education. In L V Meek and G Harman (eds) The binary experiment for higher education: an Australian perspective. Armidale: Department of Administrative, Higher and Adult Education Studies, University of New England, pp 151 - 165.

Magnus P (1881) Industrial education. London: Kegan, Paul, Trench and Co.

McGill University undergraduate admissions (2001). http://www.aro.mcgill.ca/adm/aea.htm.

Medsker L L and Tillery, D (1971) Breaking the access barriers: a profile of two-year colleges. New York: McGraw Hill.

Medsker L L (1972) The global quest for educational opportunity. Berkley: Center for Research and Development in Higher Education, University of California.

Moorhouse C E (1960) Technical and technological education in Australia. The Australian Journal of Education, vol 4, no 3, pp 175-90.

Murray-Smith S (1965) Technical education in Australia: a historical sketch. In E L Wheelwright (ed) Higher education in Australia. Melbourne: F W Cheshire, pp 170-91.

Ontario Ministry of Education and Ministry of Training, Colleges and Universities (2001) Colleges of Applied Arts and Technology. http://www.edu.gov.on.ca/eng/general/postsec/college.html.

Parkes D (1991) Home thoughts from abroad: diagnosis, prescription and prognosis for British vocational education and training. European Journal of Education, vol 26, no 1, pp 41-53.

Partridge P H (1973) Society, schools and progress in Australia. Sydney.
Pueblo Community College (2001) Degrees and certificates. http://www.pcc.cccoes.edu_degrees/welcome.htm.

Quebec Ministere de l'education (2001) Education in Quebec. http://www.meq.gouv.qc.ca/rens/brochu/anglais/m_educaqc.htm.

Ramler P (1997) Review of Melbourne TAFEs. Ministerial review on the provision of technical and further education in the Melbourne metropolitan area. http://www.otfe.vic.gov.au/publi/minrev/final.htm.

Red Rocks Community College (2001) Degree and certificate programs. http://www.rrcc.cccoes.edu/degfrmset.html.

Schofield K (1998) University-TAFE collaboration: the kiss of death? Paper to the 22nd ATEM conference, Darwin. http://www.ntu.edu.au/local/atem/conference/plenary/p2.pdf.

Schofield K (2000) Traineeships: lessons from three reviews. Presentation to Victoria University of Technology, Melbourne, 15 August (author's notes).

Symes C (1999) Working for your future: the rise of the vocationalised university. Australian Journal of Education, vol 43, no 3, pp 241-256.

Technical and Further Education Commission (1976) Report for the triennium 1977-1979. Australian Government Publishing Service: Canberra.

Times Higher Education Supplement (1973, 2 Feb) Wearing of the green. Quoted in Hermann et al (1976), p 33.

University of Southern Colorado (USC) (2001) Academic programs. http://www.uscolo.edu/info/acad_index.html#Academic_Department_Web_Sites.

Wilkinson R H (1970) The gentleman ideal and the maintenance of a political elite. In P W Musgrave (ed) Sociology, history and education. London: Methuen.

Williams H S (1961) Technical education - state or national? The Australian Journal of Higher Education (formerly The Educand), vol 1, no 1, pp 98-103.

Williams H S (1963) Tertiary technical in Australia. The Australian University, vol 1, no 1, pp 89-119.

Williams H S (1965) The technical colleges. In J Wilkes (ed) Tertiary education in Australia. Sydney: Angus and Robertson, pp 66-85.

Contact details

Gavin Moodie
245 Geelong Road
West Footscray 3012
Ph: +61 3 9284 8947
Fax: +61 3 9284 8778
Email: Gavin.Moodie@bigpond.com

Identity matters: learning and managing at the frontline

Dianne Mulcahy

Department of Education Policy and Management, University of Melbourne, Victoria

The last two decades have witnessed a number of initiatives in vocational education and training aimed at developing more flexible systems of learning, offering greater choice to employers and - more arguably - employees, in relation to the what, how and where of learning. The Frontline Management Initiative (FMI) is one such initiative. A competence-based management development strategy, the FMI places learning within an organisation. It could be considered a critical site for cultivating ideas of lifelong learning and translating these ideas into practice.

Drawing on data collected as part of a national evaluation study, this paper explores the contribution of the FMI to the practice of management learning in selected enterprises. Initially, some discourses of management and learning are presented as background to this exploration. The argument is made that 'identity work' is central to the FMI. Managers not only learn to manage by means of acquiring or demonstrating skills, but also to negotiate particular types of identity with respect to managing – eg business manager, strategic manager, and 'high performing manager'. In other words, they assume certain kinds of social roles; the roles that are proposed for them in the standards set for achieving competency in frontline management. Some participants in the program however, appear to extend these roles, indicating that frontline management can be conceived and practised in a variety of ways.

In analysing these participants' accounts of the FMI, what emerges is a more complex image of managers actively exploring the indistinctness of their role boundaries and constructing various identity positions, including business manager, strategic manager, coach, educator, learning leader, professional developer and organisational developer.

The Frontline Management Initiative: 'new model management'

The last decade has witnessed the growth of new concepts and practices in management and management development in organisations. Managers are increasingly encouraged to take more responsibility for *development*; both the development of individuals and the development of the organisation. Work is increasingly organised around projects and teams and organisational decisions are made in these teams. The 'new model manager' is taken to be more a *coach* than a *cop*; able to implement management practices which build teams, provide leadership, 'empower' workers and harness their knowledge and creativity.

The Frontline Management Initiative (FMI) originated as an initiative of *Enterprising Nation* – or, more commonly, the Karpin Report (Karpin 1995). This report identified an urgent need to upgrade the leadership skills of Australian frontline management. A frontline manager is a person who is responsible for the coordination of the work of others. Frontline managers oversee the actual doing of work: they 'are people who really know the work and are in a position to take something of an overview, to reflect on how things are being done' (Suchman 2000, p 3). They are typically staff who are described as coordinators, supervisors, first line managers, junior managers, team leaders, leading hands, office managers and the like.

The FMI is a competence-based management development strategy which places learning within an organisation and links management performance to the achievement of business outcomes. Competency standards form the foundation of this strategy. These standards do not relate to any specific job functions; rather, they relate to a set of skills. The eleven competencies and their elements are as follows:

Figure 1: Frontline Management Competencies[1]

Leading by example	
Unit	**Element**
1. Manage personal work priorities and professional development	1.1 Manage self 1.2 Set and meet work priorities 1.3 Develop and maintain professional competence
2. Provide leadership in the workplace	2.1 Model high standards of management performance 2.2 Enhance the enterprise's image 2.3 Influence individuals and teams positively 2.4 Make informed decisions
Leading, coaching, facilitating and empowering others	
Unit	**Element**
3. Establish and manage effective workplace relationships	3.1 Gather, convey and receive information and ideas 3.2 Develop trust and confidence 3.3 …
4. Participate in, lead and facilitate work teams	4.1 Participate in team planning 4.2 Develop team commitment and cooperation 4.3 …
Creating best practice	
Unit	**Element**
5. Manage operations to achieve planned outcomes	5.1 Plan resource use to achieve profit/productivity targets 5.2 …
6. Manage workplace information	6.1 Identify and source information needs 6.2 …
7. Manage quality customer service	7.1 Plan to meet internal and external customer requirements 7.2 …
8. Develop and maintain a safe workplace and environment	8.1 Access and share legislation, codes and standards 8.2 …
9. Implement and monitor continuous improvement systems and processes	9.1 Implement continuous improvement systems and processes 9.2 …

BEST COPY AVAILABLE

Creating an innovative culture	
Unit	**Element**
10. Facilitate and capitalise on change and innovation	10.1 Participate in planning the introduction of change 10.2 …
11. Contribute to the development of a workplace learning environment	11.1 Create learning opportunities 11.2 …

Discursive positioning: the high performing frontline manager

As stated in the introduction to *Frontline Management Competencies*, one of the booklets which forms part of the Frontline Management Development Kit, frontline management competencies 'describe what is expected of high performing frontline managers' (Australian National Training Authority 1998, p 1). The critical words here are 'high performing'. High-performance work organisation is a defining feature of the high-performance workplace. 'A high-performance workplace can be defined as having two or more of the following practices: self-managed teams, problem-solving groups, job rotation, and total quality management' (Kirby 2000, p 31). The FMI seeks to create 'high-performing managers' – in other words, to shape the subjectivity of frontline managers, to make these managers in a particular mould.

Frontline managers are discursively constructed as leaders, facilitators, coaches, creators of best practice and so on. In line with the discourse of high performance, the discourses of identity that wash through these competency standards stress managerial agency – 'participate in, lead and facilitate work teams', 'facilitate and capitalise on change and innovation'. Interestingly, the relationship between learning and managing is somewhat ambiguous. For example, the competencies which comprise 'leading, coaching, facilitating and empowering others' are more commonly associated with educational activity than management activity. Among other things, the frontline manager is represented as a leader of learning and agent of organisational change. This representation embodies a vision of management and learning that has wide appeal.

Each of these subject positions signals that this management development strategy sits squarely within the 'new model management', where the emphasis is on employee learning and development: 'A key feature of (the) transformation in the nature of work is the new, enhanced role for the frontline worker. … Many workers are now asked to contribute their ideas. Quality now depends on everyone involved taking responsibility' (Kirby 2000, p 32). As a management development strategy, the FMI sits comfortably with the kinds of strategic directions that companies are commonly setting today. A national Learning and Development Manager of a large retailer explains the link in these terms:

> Part of our strategic direction is to be innovative and for people to be empowered and so those things are very important. That's how we try to align our learning strategies, so that people take on responsibility for their own learning, so that's one link and certainly the Frontline Management

> Initiative does that, as well as, you know, it has all those principles. As far as the content, certainly leadership skills are very important and the types of competencies are very aligned to our strategic direction of the company.

Identity work: Negotiating meanings, skills and selves

Michelle's story: 'I am a manager and that's what I am'

Michelle is the Director of a child care centre – a small, not for profit business which provides work-based children's services to a large government organisation. She was one of the first in Australia to undertake the Frontline Management Diploma and successfully complete it:

> At that time, the pilot people would come from the college out to each particular organisation and discuss things with you and do your assessment on the spot in your workplace and they were looking for workplace examples to meet the competencies for FMI. What we found in my case I gather was quite exceptional. For the whole eleven units here, I was able to meet every single competency without doing any work at all, any extra work at all. It was all here in my filing cabinet. I could go there and I could just produce documentation, evidence, and talk about it.

Prior to the development of the FMI, Michelle was enrolled in the Certificate in Small Business:

> So some of us enrolled in that and we did it over a 2 1/2 year period. That was just absolutely fascinating. That was the whole new world and from that point I stopped thinking like an Early Childhood person and looking back on it, that's when I really became a manager.

For Michelle, becoming a manager means that she must stop 'thinking like an Early Childhood person' and start showing 'that we are as good as other business people and managers':

> What I would dearly love to do is to show that people who work in the Early Childhood field are not people who 'muck around with kids all day' because that's what people say to us all the time: 'Aren't you lucky'. I want to show people out there that we are as good as other business people and managers.

Early Childhood professionals work in an industry where little recognition is given to the depth and breadth of their skills. A member of Michelle's staff, and a candidate for the Frontline Management Certificate, speaks to this situation in this way:

> We do a lot more in the room than feeding, changing, playing with the children. We have set goals for the children and we have a program with set activities. It isn't just toys on the floor and have the children crawl around … we do creative things and have learning encouragement.

Taking out a management qualification is one means of gaining recognition and showing 'that people who work in the Early Childhood field are not people who "muck around with kids all day"'. In Michelle's case, achieving the Frontline Management Diploma meant public acknowledgement of the fact that she was performing a managerial role and doing a job equal to any other manager: 'What it actually said to me was: "Hey, you are doing a job that you didn't realise you could do"'.

The competence that Michelle displays in her job underwrites her identity as a manager. In other words, demonstrating management competence is at the same time negotiating a managerial self as well as negotiating recognition by others of this self:[2]

> Having achieved the Frontline Management Diploma, it changed a lot of people's attitude to what I did. It changed the Committee, and the Committee tends to change each 12 months or two years. In general terms, it's changed the Committee attitude because it's now obvious to everyone because someone externally has recognised that I am a manager and that's what I am, just like my title has been changed recently, nothing else has changed. But the perception is quite different.

The language and concepts of the Frontline Management Initiative are a significant resource for Michelle and her Committee of Management. They provide a platform upon which her identity as a manager can be constructed and shaped: 'My title has been changed recently, nothing else has changed. But the perception is quite different'.

More broadly, the change of title from 'Centre Director' to 'Centre Manager' signals the growth of managerialism within public sector organisations (Clarke and Newman 1997; Pollitt 1993). In other words, it embeds a particular view of management within these organisations. The discourse of management which plays out in these organisations is predominantly a business discourse concerned with commercial growth and development:

> My role just keeps on evolving. I think it is evolving out of frontline management. If I could grow this position more, or this business more, I would, and then I would definitely move out of frontline management into senior management. And then you could have a frontline management layer beneath. That's actually what I would like to do.

For Michelle, identification with the roles and responsibilities of the small business manager is very strong:

> There were questions posed much earlier in the setting up of this place along the lines of 'Is it something we could outsource and you could take over?' but it would be over my dead body, it just wouldn't be, which is sad in a way. The way to make a profit in children's services would be to own or operate more than one centre and you could then have, for example, one, as in staff, for two or three centres and then you would just put someone in to do the day to day running. You could have one cook, one maintenance person. That would be the way to go about it. ... The public has a perception that being with children, there isn't a perception of a business in there at all which is a shame. It can't be anything but a business. It's just a chicken and egg kind of thing.

This identification however, does not exclude interest in the non-business aspects of providing children's services, ie the centre's community and educational roles: 'We do a lot more in the room than feeding, changing, playing with the children. ... We do creative things and have learning encouragement'. 'Doing a lot more' involves running a business and providing an educational service. It also involves working these seemingly disparate practices together. In Michelle's words, 'It's just a chicken and egg kind of thing'.

Kim's story: 'You end up being a bit more commercially focused without necessarily selling your soul'

Kim is a project team leader within a large TAFE. His work involves managing and monitoring the delivery of full, fee-for-service programs in and to industry. In his former role as a program coordinator, Kim happened upon the FMI:

> At the time I was a program coordinator. I managed the English Language Unit at (x campus). I had been there for five or six years and ... basically (grew) it from nothing to about 70,000 student contact hours. So given the pending changes and my understanding of FMI which was reasonably limited, I figured that when I looked at the competencies I was a typical frontline manager so that was the time to do it, because by the end of that year I might not have been a program coordinator because we knew we had to pack the Unit up in two trucks and drive away.

Given the discourse of managerialism that permeates public sector organisations (Clarke and Newman 1997) such as the TAFE in which Kim works, commercial and business values tend to prevail. Among other things, managerialism involves strengthening management functions, including the establishment of new planning systems that utilise target setting processes, performance indicators, merit pay and appraisal. The FMI, and Kim as a graduate of the FMI, are caught up in this discourse:

> I would say that my planning skills are not so much better but that I plan more. So I see planning much more as an integral part of doing the job. ... That for me is the key thing. The other thing would be ... I am much less afraid of and tentative about feedback in terms of when I was managing feedback from team members and feedback to team members. I suppose I am less likely to feel like everyone has to like me all the time and that feedback is about that.

Something of the pervasiveness of the discourse of managerialism within this TAFE emerges in the following account by a senior manager of the benefits of the FMI:

> I think it highlighted for the people that work in OH&S and people managing them, I think it highlighted the fact that we didn't have the background to be able to manage our business in that area. And I think in financial management as well. I think they are two areas that seemed to show up for a lot of participants in FMI and I think generally people's capability in terms of financial management has improved. I think that has been a benefit. ... I think also that sort of understanding and need to integrate a whole lot of things. Financial management is one, but strategic planning and performance management, about trying to have a complete kit-bag of things to be able to manage. I think that's the other thing that people probably learnt and I think has helped the organisation.

The discourse and practice of managerialism is not unacceptable to Kim:

> To me, when you do it (the FMI), all of a sudden instead of staying within your 1970s cloak and going: 'Ooh we shouldn't have to make profit', you actually just understand: 'Well of course, it has to pay for itself'. Whatever you do has to pay for itself. So you end up being a bit more

BEST COPY AVAILABLE

> commercially focused without necessarily selling your soul. So you just end up with an understanding of what management is. It doesn't matter who you work for or what you do. (Participant)

Not unlike Michelle above, he appears quite comfortable in a managerial role where, in essence, management means business management: 'I ... basically (grew) it from nothing to about 70,000 student contact hours'. Far from giving a one-dimensional account of himself however, Kim's positioning is circumspect and strategic. The identity he presents at work is flexible or, better perhaps, partial (Flecker and Hofbauer 1998). Thus, he understands himself as 'a bit more commercially focused without necessarily selling (his) soul'. The ambivalence of his positioning emerges in this comment:

> The basic tool and the basic competencies are excellent. I think it is really terrific. If it is done reasonably well, then it does have all these organisational implications which aren't just about stirring. They can be really constructive and they assist in putting responsibility where it should be. Whether that's up, down, or in the middle, it makes no difference. We ran an FMI project at a TAFE in Gippsland. We ran it for them. What they did was the CEO did it first, then his general manager did it, and each time one completed it, they would become coaches for the next level. Fantastic. Not many organisations are brave enough to do it that way.

And, again in the following:

> I think (FMI) was also inadvertently a way of making us be much more outward looking so taking on some understanding about how the rest of the world works. Moving away from just being an education bureaucracy through to a real life business that's got to manage.

Importantly, the move away from 'being an education bureaucracy through to a real life business' is not total: the qualifier 'just' would seem to suggest that Kim maintains a focus on educative work in his managerial role.

As a result of participating in the FMI, Kim has formed a new managerial self in the form of 'fire prevention officer':

> (The FMI) provides definition and parameters around what frontline management really is. It made me shift from seeing my job as someone who ran around with a fire extinguisher in the back pocket putting out spot fires all day every day, to someone who was a bit more of a fire prevention officer, who did a bit more planning, saw planning as a way to avoid that, and it meant that I didn't have to run on adrenalin quite so much.

Kim's identity as a 'fire prevention officer' derives from his need to reduce 'run(ning) on adrenalin'. A personal need is answered by a professional practice (doing 'a bit more planning'). The contrariness evident in the comments above presents itself again. The work of identity is ongoing and pervasive. Kim's identity as a manager appears to be an ongoing negotiation of points of identification: running on adrenalin and doing a bit more planning; adopting a commercial focus and selling your soul; moving away from educational bureaucracy and moving to real-life business.

Author's note

The selections from the interview data which have been made illustrate the idea that 'identity exists not as an object in and of itself but in the constant work of negotiating the self' (Wenger 1998, p 151). From a postmodern research perspective (see Usher 1999, for discussion of this perspective), the story being told through the two case studies is one of strategic and partial positioning within discourses which draw on contemporary meanings of management, but also on other meanings, eg meanings in and around education, community expectations and professional practice. In analysing these accounts of practice, what emerges is a complex image of managers actively exploring the indistinctness of their role boundaries and constructing various identity positions, including that of business manager, strategic planner, coach, educator, learning leader, professional developer and organisational developer. Thus, as a project team leader, Kim both manages and monitors programs and leads learning and development within these programs:

> (X company) is a typical program. X would have a case load and I would have a case load and we see those people on a one-to-one basis to get them ready for assessment and then to follow through with any individual development after assessment.

According to Suchman (2000, p 3), change is always in process at the front lines and frontline managers are 'ideally positioned to be informed agents of change'. Frontline managers fill critical positions within organisations. Arguably, critical positions need to be filled in critical ways. The practice of positioning critically forms one of these ways. This practice might be thought an identity practice. It is an important practice in the production of the identity 'informed agent of change'.

Notes

1. This table is an adaptation of material in The Frontline Management Development Kit. Published and sold by Prentice Hall Australia, this Kit is available in a boxed set including five books plus access to an interactive website. See Australian National Training Authority (1998, p 6).

2. In the practice-theoretical tradition (Chaiklin and Lave 1993; Wenger 1998), competence and identity are intricately entangled. 'Membership in a community of practice translates into an identity as a form of competence' (Wenger 1998, p 153). In this tradition, learning in practice means negotiating an identity (ie learning is not just the acquisition of skills/competencies).

References

Australian National Training Authority (1998) Frontline Management Initiative. Sydney, New South Wales: Prentice Hall.

Chaiklin S and Lave J (eds) (1993) Understanding practice: perspectives on activity and context. Cambridge and New York: Cambridge University Press.

Clarke J and Newman J (1997) The managerial state. London: Sage.

Flecker J and Hofbauer J (1998) Capitalising on subjectivity. In P Thompson and C Warhurst (eds) Workplaces of the future. Basingstoke: Macmillan Business.

Karpin D (1995) Enterprising nation. Report of the Industry Task Force on Leadership and Management Skills. Canberra: Australian Government Publishing Service.

Kirby P (2000) Ministerial review of post compulsory education and training pathways in Victoria. Final report, Department of Education, Employment and Training, Melbourne.

Pollitt C (1993) Managerialism and the public services: cuts or cultural change in the 1990s? Oxford, UK, Cambridge, USA: Blackwell Business.

Suchman L (2000) I have, more than ever, a sense of the immovability of these institutions. Published by the Department of Sociology, Lancaster University at. http://www.comp.lancaster.ac.uk/sociology/soc0531s.html.

Usher R (1999) Research on work, research at work. Paper presented at the Postgraduate Conference of the Department of Vocational Education and Training Researching vocational education and training: diversity at work, University of Melbourne, Melbourne, 24 July.

Wenger E (1998) Communities of practice: learning, meaning, and identity. Cambridge: Cambridge University Press.

Contact details

Dianne Mulcahy
Department of Education Policy and Management
Faculty of Education
Alice Hoy East
University of Melbourne
Parkville Victoria 3010
Email: d.mulcahy@edfac.unimelb.edu.au

The effectiveness of enabling courses in assisting individuals to progress to other training programs

Oanh Phan

National Centre for Vocational Education Research, South Australia

In the VET sector, students of Aboriginal or Torres Strait Islander descent, students from a non English-speaking background and those with a disability were at least three times more likely to enrol in lower-level preparatory and pre-vocational courses known as enabling courses than other Australians. Students from other 'disadvantaged' groups such as those who were unemployed prior to the commencement of their VET program, or students whose highest level of secondary schooling was below year 12, were also more inclined to undertake studies in these lower-level courses.

This paper provides information on the progression of enabling course students within the VET sector. In particular, the paper examines the factors that influence the likelihood of an enabling course student enrolling in a course at a higher level of qualification.

The study found that enabling courses in fact do produce positive outcomes for many people. Nevertheless, while not all enabling course students are moving from one enabling course to another, the tendency for some students to enrol in the same level of qualification in the following year raises some concern. Moreover, those who decided to enrol in the same level of qualification in the following year were usually enrolled in the same enabling course. These students were more likely to be women, students with a disability, students from a non English-speaking background and students whose highest level of secondary schooling was year 9 or below.

In the vocational education sector, students undertaking lower-level courses such as 'Job seeker preparation and support program', 'Employment skills development program', 'English as a second language' or 'Adult literacy and numeracy' are predominantly those who come from a 'disadvantaged' background. In 1998, students of Aboriginal or Torres Strait Islander descent, students from a non English-speaking background and those with a disability were at least three times more likely to enrol in these lower-level courses, known as enabling courses, than their counterparts. Students from other 'disadvantaged' groups such as those who were unemployed prior to the commencement of their enabling course, or students whose highest level of secondary schooling was below year 12, were also more inclined to undertake studies in these courses.

Aims

This study utilises the data collected under the Australian Vocational Education Training and Management Information System (AVETMIS) Standard[1] to examine the effectiveness of enabling courses in assisting members from 'disadvantaged' backgrounds to progress to other training programs. The study also identifies factors

BEST COPY AVAILABLE

that influence the likelihood of these individuals enrolling in a course at a higher level of qualification.

This paper reports some of the findings reported in Phan and Ball (in press).

Methodology

To determine the effectiveness of enabling courses in assisting members of 'disadvantaged' backgrounds to progress to other training programs, students who completed an enabling course in 1997 were tracked in 1998. The level of qualification of the course undertaken by these students in 1998 was compared to the level of qualification of the enabling course completed in 1997.

Following the successful completion of a course, a student can receive one of the following qualifications:

- Diploma
- Australian Qualification Framework (AQF) - Certificate IV or equivalent
- AQF - Certificate III or equivalent
- AQF - Certificate II or equivalent
- AQF - Certificate I or equivalent
- AQF - senior secondary
- Certificate of competency
- Certificate of proficiency
- Endorsements to certificates
- Statement of attainment.

A student is considered to have enrolled in a 'higher' level of qualification if he/she in 1997 enrolled in 'AQF Certificate II' and subsequently enrolled in 'AQF Certificate III', 'AQF Certificate IV' or 'Diploma' in 1998. However, if the same student had enrolled in 'AQF Certificate I' in 1997, then this student would be considered to have enrolled in a course at a 'lower' level qualification. Alternatively, if this student was undertaking a course which resulted in a 'Certificate of competency', 'Certificate of proficiency', 'Endorsements to certificates' or 'Statement of attainment' in 1998, then this student would be considered as having enrolled in an 'other' level of qualification.

Statistical analysis using logistic regression was conducted to determine factors that influenced the likelihood of an enabling course student to enrol in a vocational course at a higher level of qualification in the following year.

Refer to Phan and Ball (in press) for more information on the methodology of the study.

Progression of enabling course students

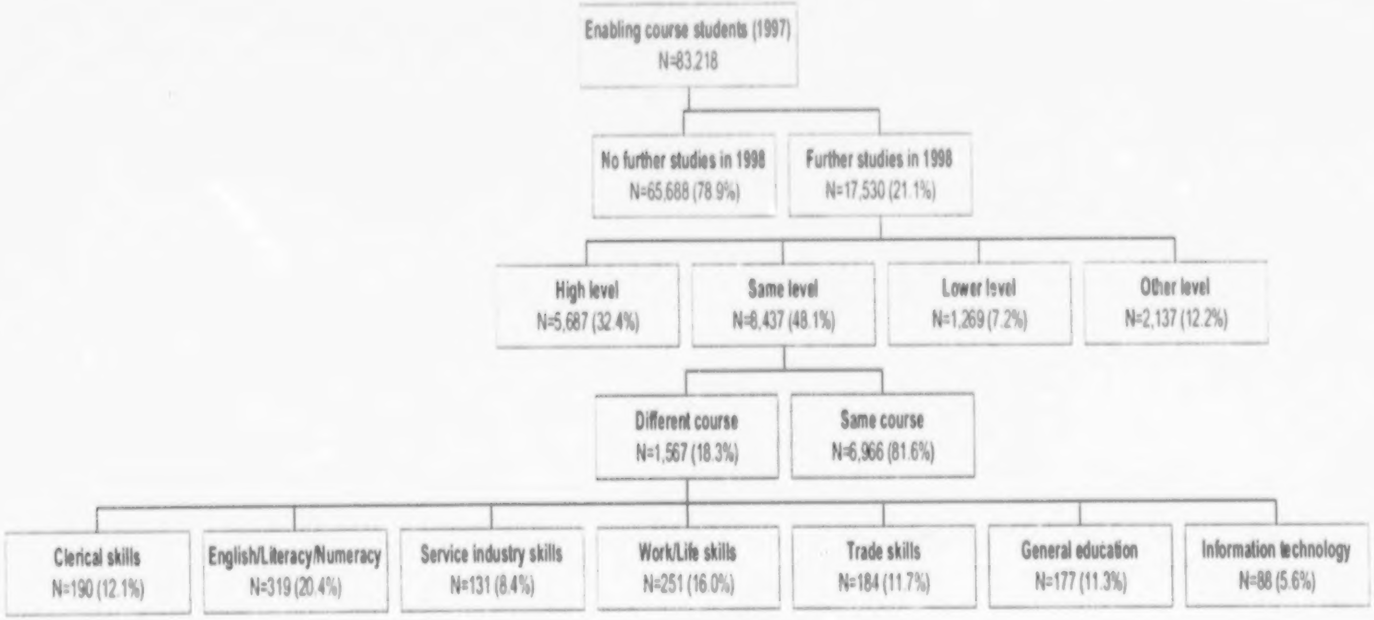
Following their enrolment in an enabling course in 1997, just over 20% of these students decided to continue their studies in the vocational education and training sector in the following year. Of those who decided to continue their studies in the VET sector, almost a third enrolled in a course at a 'higher' level of qualification while almost half enrolled in a course at the 'same' level of qualification. Over 10% of students enrolled in a course classified under an 'other' level of qualification, and less than 8% enrolled in a course at a 'lower' level of qualification (refer to Figure 1).

Although there was a large proportion of students enrolling in courses at the same level of qualification as that undertaken in the previous year, this does not necessarily mean that these individuals did not achieve a positive outcome following the completion of their enabling course. Many of these students diversified into other areas of learning. They undertook courses in clerical skills, service industry skills, work and life skills or knowledge in the information technology area. The skills and knowledge gained by these individuals may subsequently assist them to improve their employment prospects.

Of all enabling course students who continued their studies in the VET sector in the following year, just over 12% of these students enrolled in courses classified under the 'Certificate of competency', 'Certificate of proficiency', 'Endorsement to certificate' and 'Statement of attainment' levels of qualification. These qualification categories were introduced under the Register of Awards in Tertiary Education (RATE) system. Therefore, it was not feasible to make definitive conclusions on the effectiveness of enabling courses in assisting these individuals to progress to a higher level of education, since it is difficult to determine whether these qualification categories are better recognised than 'AQF senior secondary', 'AQF Certificate I' or 'AQF Certificate II'. However, 'Endorsements to certificates' were meant to be qualifications additional to trade certificates and some courses classified under the 'Statement of attainment' level could be classified as 'AQF Certificate IV' courses. Therefore, it could be assumed that the majority of these students have achieved a positive outcome following the completion of their enabling course.

However, over a tenth of students who continued their studies in the vocational education and training sector in the following year actually enrolled in a course at a 'lower' level of qualification than the one undertaken previously. This indicates that, while enabling courses are effective in producing positive outcomes for large number of students, they are not effective in assisting *all* students to achieve a positive outcome. Nevertheless, it should be noted that the proportion of students who enrolled in a 'lower' level of qualification was minimal. Less than 3% of all enabling course students actually moved into a lower level of qualification in the following year.

Figure 1: The progression of students within VET following the completion of their enabling course


Enabling course students (1997)
N=83,218
No further studies in 1998
N=65,688 (78.9%)
Further studies in 1998
N=17,530 (21.1%)
High level
N=5,687 (32.4%)
Same level
N=8,437 (48.1%)
Lower level
N=1,269 (7.2%)
Other level
N=2,137 (12.2%)
Different course
N=1,567 (18.3%)
Same course
N=6,966 (81.6%)
Clerical skills
N=190 (12.1%)
English/Literacy/Numeracy
N=319 (20.4%)
Service industry skills
N=131 (8.4%)
Work/Life skills
N=251 (16.0%)
Trade skills
N=184 (11.7%)
General education
N=177 (11.3%)
Information technology
N=88 (5.6%)

Progression of enabling course students from 'disadvantaged' backgrounds

The following section provides further analysis on the outcomes achieved by members of 'disadvantaged' backgrounds one year following an enrolment in an enabling course.

Age

Following the completion of their enabling course, students in the 50-64 age group were more likely to enrol in a course at the 'same' level of qualification as that completed in the previous year. These students were also more inclined to enrol in courses at a 'lower' level of qualification than their younger counterparts. Students in the 50-64 age group were also more likely to re-enrol in the same enabling course. In particular, students in the 60-64 age group were the most likely to re-enrol in the same enabling course in the following year.

Other things being equal, students in the 15-29 age group were significantly more likely to enrol in a course at a higher level of qualification than students in the 30-39 age group. The probabilities of students in the 15-19 and in the 20-24 age group enrolling in a higher-level course were respectively 66% and 59% higher than for students in the 30-39-year age group.

Students in the 40-59 age group, on the other hand, were significantly less likely to enrol in a higher level of qualification course than students in the 30-39 age group. The probability of enrolling in a course at a higher level of qualification for students in the 40-49 age group was 20% lower compared to students in the 30-39 age group. Furthermore, the probability of enrolling in a course at a higher level of qualification for students in the 50-59 age group was 39% lower in comparison to students in the 30-39 year age group.

Gender

While gender is not a factor that influences the likelihood of an enabling course student enrolling in a higher-level course, men were slightly more likely to enrol in a 'higher' level of qualification in the following year than women. Women in enabling courses were more likely to undertake studies at the 'same' level of qualification as that undertaken in the previous year.

Nevertheless, for those who enrolled in the same level of qualification in the following year, men were more likely than women to re-enrol in the same course.

Aboriginal or Torres Strait Islander descent

Compared to other Australians, students who reported that they were of Aboriginal or Torres Strait Islander descent were less likely to enrol in a higher level of qualification. These students were more inclined to undertake 'lower' level courses or courses classified at 'other' levels of qualification.

For those who enrolled in a course at the 'same' level of qualification, students reporting Aboriginal or Torres Strait Islander descent were less likely to re-enrol in the same course than other students.

All things being equal, the likelihood of an enabling course student enrolling in a course at a higher level of qualification was not influenced by his/her Aboriginal or Torres Strait Islander status.

Non-English-speaking background

Students who reported that they were from a non English-speaking background were less likely to enrol in a 'higher' level course. These students were much more likely to enrol in courses at the 'same' level of qualification and at a 'lower' level of qualification than their counterparts. In addition, for those who enrolled in the same level of qualification, students reporting that they came from a non English-speaking background were more inclined to enrol in the same enabling course in the following year than their counterparts.

Nevertheless, the probability of an enabling course student enrolling in a course at a higher level of qualification was not dependent on a student's language background. All things being equal, the likelihood of an enabling course student enrolling in a course at a higher level of qualification was not influenced by whether a student is from a non-English or an English-speaking background.

Disability

Students who reported having a disability were less likely to undertake further studies at a 'higher' level than their counterparts. About 57% of these students enrolled in the 'same' level of qualification compared to only 48% of students who reported that they did not have a disability. Students who reported having a disability were also more inclined than their counterparts to enrol in courses classified under the 'other' level of qualification category.

Enabling course students with an intellectual disability were most likely to enrol in the same level of qualification in the following year, while enabling course students with a visual, sight or hearing disability were more likely to enrol in a course at a higher level of qualification compared to students with other types of disabilities.

On the whole, students who reported having a disability were more likely than other students to re-enrol in the same course than other students.

Other things being equal, students who reported having a disability were significantly less likely to enrol in a course at a higher level of qualification following the completion of their enabling course than other students.

The probability of an enabling course student enrolling in a course at a higher level of qualification was 37% lower for students who reported having a disability than for other students.

Lived in rural or remote areas

Students who were living in metropolitan areas or capital cities were more likely to enrol in courses at the 'same' level of qualification than students who were living in rural or remote regions. Moreover, students from metropolitan areas or capital cities were more likely to re-enrol in the same enabling course in the following year than students who came from rural or remote areas.

There was little variation in the proportion of students undertaking a course at a 'lower' level of qualification by their residential geographic region.

Students who resided in rural or remote regions were significantly less likely to enrol in a higher level of qualification course than those who lived in metropolitan areas or capital cities. All things being equal, the probability of enrolling in a course at a higher level of qualification for students who lived in rural or remote areas was 24% lower than for students who lived in other regions of Australia.

Unemployed prior to the commencement of an enabling course

Students who reported that they were unemployed prior to the commencement of their enabling course were slightly more likely to enrol in a course at a 'higher' level of qualification than students who were employed prior to an enabling course. These students were also less likely to enrol in a course at a 'lower' level of qualification than their counterparts.

Students who reported that they were unemployed prior to the commencement of their enabling course were significantly more likely to enrol in a higher level of qualification course than other students. The probability of enrolling in a course at a higher level of qualification for students who were unemployed prior to the commencement of their enabling course was 43% higher than for other students.

Early school leavers

Generally, students who reported that their highest level of secondary schooling was year 9 or below were the least likely to enrol in a course at a 'higher' level than students whose highest level of secondary schooling was year 10 or higher. These students were more inclined to continue their studies at the 'same' level of qualification or to enrol in courses classified under the 'other' level of qualification than their counterparts.

For those who continued to study at the same level of qualification in the following year, students who reported that their highest level of secondary schooling was below year 10 were more likely to re-enrol in the same course than other students.

Students who reported that their highest level of secondary schooling was below year 11 were significantly less likely to enrol in a higher level of qualification course than those who completed year 12 as their highest level of secondary schooling.

The probability of enrolling in a course at a higher level of qualification for students whose highest level of secondary schooling was year 10 was 9% lower compared to students who completed year 12. The probability of enrolling in a higher-level course for students whose highest level of secondary schooling was below year 10 was 47% lower than for students whose highest level of secondary schooling was year 12.

Students from multiple 'disadvantaged' groups

Women who were unemployed prior to the commencement of their enabling course were more likely to undertake their further studies at a 'higher' level of qualification than unemployed students from a non English-speaking background or unemployed Indigenous students.

Unemployed students from a non English-speaking background, on the other hand, were more inclined to continue their studies at the 'same' level of qualification than unemployed women or unemployed students of Aboriginal or Torres Strait Islander descent.

Unemployed students who reported that they were of Aboriginal or Torres Strait Islander descent, however, were more likely to enrol in a course at a 'lower' level of qualification than unemployed women or unemployed students from a non English-speaking background.

Women from rural or remote areas were more likely to enrol in a course at a 'higher' level of qualification compared to students who reported that they were of Aboriginal or Torres Strait Island descent living in rural or remote areas. Women from rural or remote areas were also more inclined to enrol in courses at 'other' levels of qualification than Indigenous Australians who were living in rural or remote regions.

Unemployed women were significantly more likely to enrol in a course at a 'higher' level of qualification than other students. The probability of enrolling in a course at a higher level of qualification for women who were unemployed prior to the commencement of their enabling course was 16% higher than for other students.

On the other hand, women from a non English-speaking background were significantly less likely to enrol in a higher level of qualification than their counterparts. All things being equal, the probability of enrolling in a course at a higher level of qualification for women from a non English-speaking background was 19% lower compared to other students.

Similarly, students indicating that they came from a non-English speaking background and that they were unemployed prior to the commencement of their enabling course were significantly less likely to enrol in a 'higher' level of qualification course by comparison with other Australians. The probability of enrolling in a course at a 'higher' level of qualification for students who reported that they were from a non English-speaking background and unemployed prior to the commencement of an enabling course was 41% lower than for other students.

Students who reported that they were of Aboriginal or Torres Strait Islander descent and unemployed before the commencement of their enabling course were also significantly less likely to enrol in a course at a 'higher' level of qualification than their counterparts. The probability for these students to enrol in a course at a higher level of qualification was 47% lower than for other students.

Implications from findings

The findings suggest that a large number of enrolments at the 'same' level of qualification in the following year were attributed to older individuals in the 40-64 age group, women, students from a non English-speaking background, students with a disability and students whose highest level of secondary schooling was below year 10. Furthermore, students from an Aboriginal or Torres Strait Islander descent or students from a non English-speaking background were also more inclined to enrol in a course at a lower level of qualification than other Australians after the completion of an enabling course.

However, demographic characteristics were not necessarily factors influencing the likelihood of an enabling course student enrolling in a course at a higher level of qualification. For instance, students in the 40–59 age group and those with a disability were significantly less likely to enrol in a course at a 'higher' level of qualification than their counterparts. Nonetheless, there was no difference in the likelihood of students from other 'disadvantaged' groups such as those of Aboriginal or Torres Strait Islander descent or from a non English-speaking background enrolling in a course at a 'higher' level of qualification compared to other Australians. Furthermore, the probability of enrolling in a higher-level course for students who were unemployed prior to the commencement of their enabling course was greater than for other students. Hence, many students from 'disadvantaged' groups are achieving a positive outcome from studying an enabling course.

Further research

Although enabling courses are effective in assisting many students to achieve positive outcomes, the tendency for some members from various 'disadvantaged' groups to enrol in a course at the 'same' level of qualification or to re-enrol in the same course in the following year requires further investigation. Qualitative research to identify reasons why some people decide to remain at the same level of qualification or to re-enrol in the same enabling course is required to address this issue.

Note

The AVETMIS Standard offers a nationally consistent standard for the collection, analysis and reporting of vocational education and training information throughout Australia.

Reference

Phan O and Ball K (in press) Outcomes from enabling courses. Leabrook, South Australia: National Centre for Vocational Education Research.

Contact details

Oanh Phan
National Centre for Vocational Education Research
252 Kensington Road
Leabrook, South Australia 5068
Email: Oanh@ncver.edu.au

BEST COPY AVAILABLE

Abstract

DEGREES GO TO TAFE:
TRANSITION EXPERIENCES IN A MULTI-SECTORAL INSTITUTION

Heather Pitt
Swinburne University of Technology
Hawthorn Campus

Over recent years there has been a strong emphasis on TAFE courses preparing students to articulate into higher education degree courses, often directly from the secondary sector. However, there are increasing numbers of students articulating from the higher education sector (after completing their degree) into a range of TAFE courses, in an effort to either enhance their education or give it an applied or more vocational focus. Whilst a body of research exists concerning those students who enter the TAFE sector directly from secondary schools, less is known about the perceptions or transition experiences of the undergraduate students making use of this 'reverse articulation' opportunity.

This qualitative research project aims to shed light on the perceptions of students who have completed an undergraduate degree and are moving into the TAFE sector. In particular this project will explore the transition experiences of these students as they articulate into their chosen TAFE course in a multi-sectoral institution. The paper, a work in progress, will provide insight into this less well-known and understood transition process.

Community capacity building in regional VET: small business and developing an integrated lifelong learning community

Karen Plane

University of South Australia

Small and micro business need to adopt lifelong learning on a whole of firm basis to survive in an knowledge economy/society (and may be doing so already informally in the workplace), but what does lifelong learning mean in the context of the small firm, and how might that impact on developing learning partnerships with vocational education and training (VET) both formally and informally? There is a need to qualify the extent of lifelong learning skills being used in the small firm workplace, define the range of learning partnerships both within VET and the wider informal learning community in which small business will invest, and how this might influence infrastructure for developing learning communities in regional Australia for the future. This paper argues that there are similar challenges for VET and small business in a competitive market training economy, and suggests an alternative community capacity building model of nine 'ecologies' or microcultures of learning of equivalent importance in developing lifelong learning partners, considered essential for developing integrated learning communities between small business and VET. Each of these ecologies needs to be in harmony for a lifelong learning partnership to be sustainable; any weak segment or capacity will reflect on the success or stability of the learning partnership for the long term.

Lifelong learning and small business: redefining the challenges for VET

Lifelong learning as strategy for VET for developing learning communities has become a topic of much debate globally (Blunkett 1998; Brown 2000; DFEE 2000, 1998a, 1998b, 1998c; Gore 1999; Organisation for Economic Co-operation and Development 2000, 1996; Ralph 1999a, 1999b; Seiichiro 1992), but there is criticism of the claims of a 'catch all policy', and the difference between the rhetoric and the reality of a global educational strategy which is being marketed as the panacea for the learning needs of all local communities (Edwards 1999; Oliver 1999; Martin 1999). Fundamentally a central issue for the small firm workplace is balanced participation in VET from the large and small employer, when the evidence from a comparison of learning cultures in five Organisation for Economic Co-operation and Development (OECD) countries found that most small firm employers undertake *even less training than their employees* (Kearns and Papadopoulos 2000). Yarnit (2000) has argued that small businesses show a poor record in workplace learning, and studies of promulgating a culture of lifelong learning in the workplace found employers are not clear about (aware?) of their role (DFEE 1998, 1999). Interestingly, Matlay (2000) found that although small firms considered themselves learning organisations, the majority had not invested in any formal training in the last twelve months.

BEST COPY AVAILABLE

For VET in Australia, the Senate Standing Review (2000) has found, disconcertingly, that the quality of totally on-the-job learning is questionable, with most employers taking little interest in training plans and developing pathways through learning for employees; finding the correct balance of enterprise specific/industry wide (lifelong learning?) skills is problematic and there is a need for learning quality to be monitored more closely in the workplace. Returns on investment of training have found a reduction in employer commitment to formal training (Moy and McDonald 2000) and that any training in the small firm is still perceived as a short-term immediate cost as opposed to a long-term investment. Hopkins (1998, p 7) has stated that there are limitations on what can be realistically expected of enterprises in lifelong learning. There are also several threats to the national VET strategy (1998-2003) for enterprises and the need 'for a better understanding of the ways in which work and learning are emeshed'. A significant question remains: if work is learning for employers and employees in small business, is it lifelong learning?

There are, though, other alternative discourses in this debate. Field (1998) has concluded essentially for shifting the focus from training to learning in the small firm. Whilst the formal adoption of accredited training by small business is on the decline (Moy and McDonald 2000), there is a paucity of evidence on the type of lifelong learning skills being used already in the small firm workplace outside of formal VET, and discussion in VET of the types of learning partnerships in which small business will invest. The CRLRA (2000) described learning partners as being 'exogenous and endogenous' - within and outside the community - and demonstrated the wide range of partners and learning networks being developed formally and informally, which are integral to a healthy VET community in the regions.

McGiveny (2000) has found, too, that more credence needs to be given to the informal learning being undertaken in the wider community, and suggests that formalising these arrangements in VET is not the answer for building learning communities. These pathways are successful for learners because they are localised, learner driven, non-accredited, informal, non-threatening and grounded in the community. Another alternative discourse in VET has called for a redefinition of the learning and value of the 'practical wisdom' already being gained in the workplace which may be difficult to measure, accredit and qualify (Beckett and Hagar 1997; Boud 1998; Candy and Mathews 1998; Hawke 1998). Gibb (1999) has also advocated for a wider definition of what training means for small business to include information services, information providers, business networks as well as VET providers. If this is the case, to what extent do often disparate, competing organisations in VET work as lifelong learning partners and what is a realistic role for the small business community?

Research methodology

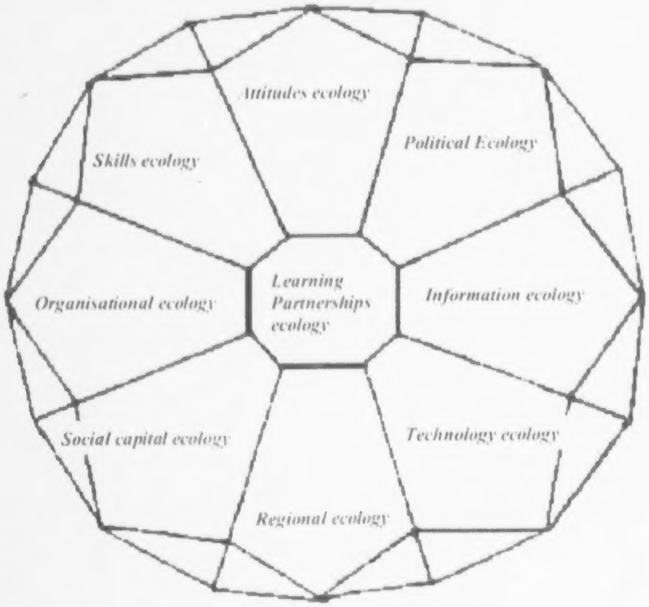
The methodology is a community capacity building (Allen 1999), qualitative case study of the range of learning partnerships - from the formal structured arrangements with VET, to the informal learning partnerships in existence with small business in the Adelaide Hills region, South Australia. Small business is defined as the owner-managed, small (6-19 employees) or micro firm (1-5) businesses that may be operating in the 'for profit' or 'not for profit' sector of the economy, or in fact a combination of both (Neighbourhood House Coordinator in conversation, February

2001). Other than the work of Kearns (1996) on Industry Education partnerships; Kearns and Papadopoulos (2000); and the DFEE (1998) on learning partnerships policy in the UK, I have not yet found a suitable definition of a lifelong learning partnership for this study, so I am going to suggest one or two somewhat tentative definitions:

1. A lifelong learning partnership is an ecumenical learning pathway of collaboration between diverse learning organisations in the community for the benefit of the learner.
2. A lifelong learning partnership is a shared, balanced commitment to building a learning community by all stakeholders, with the learner as central.
3. A lifelong learning partnership emphasises equitable participation by all partners in learning for community capacity building in regions for the future.
4. A lifelong learning partnership bridges the divides of the for profit and not-for-profit sectors of the economy for the social wellbeing of the individual, the organisation and the community.

Conceptual framework: a blueprint for an integrated learning ecology

My conceptual framework is based on nine key overlapping themes of analysis which it is intended will shed light on the tenth theme: the challenges and barriers to building an integrated lifelong learning ecology for VET. The model presents a kaleidoscopic view of the regional microcultures that I have called 'learning ecologies' as they relate to the VET landscape of VET/small business learning partnerships in the Adelaide Hills.


Attitudes ecology
Skills ecology
Political Ecology
Learning Partnerships ecology
Organisational ecology
Information ecology
Social capital ecology
Technology ecology
Regional ecology

BEST COPY AVAILABLE

These microcultures include:

1. Political ecology (VET and economic/resource sustainability and building local infrastructure, best use of existing resources and economic capital in a market economy).
2. Attitudes ecology (building civil and personal capital and values between business in its community, corporate responsibility and social entrepreneurialism).
3. Partnerships ecology (collaborative/mutual benefit, shared responsibility between organisations, developing exogenous and endogenous learning partners: building synergistic capital).
4. Skills ecology (redefining lifelong learning skills in the small firm building human capital, self-generation, pathways through formal, informal and non-formal VET).
5. Information ecology (sharing information/intellectual capital, building information networks, information dissemination and gathering, information literacy).
6. Technology ecology (virtual community, networking, e-learning and virtual learning partners, developing virtual capital business to business, business to consumer).
7. Organisational ecology (learning organisation, the lifelong learning firm, building intellectual and human capital, local leadership).
8. Social capital ecology (community capacity building, building collaboration and trust between individuals and groups).
9. Regional learning ecology (learning community, building cultural capital, a healthy environment and social wellbeing).
10. Building an integrated ecology (strategy/synergy, a holistic model).

The research questions

1. What learning partnerships exist between VET and libraries with small business in this region and where are the challenges for small business/VET lifelong learning partnerships?
2. How are lifelong learning skills defined in small business and to what extent are small firm employers adopting lifelong learning and lifelong learning

partnerships with VET?

3. What other learning partnerships exist with small business in this and other learning communities that might be applicable for lifelong learning in VET in this region, and why?

4. What are the implications for VET and small business in developing lifelong learning partnerships for the future and a learning community in the Adelaide Hills?

The political ecology: challenging the rhetoric

It could be argued that lifelong learning (Longworth 1996, 1999) as an educational strategy for VET is being marketed globally as the panacea to all regional, community and organisational learning needs, but there are those who remain somewhat cynical of the lifelong learning discourse and its re-emergence as being central to VET policy - and of the far reaching assumptions about its many claims (Law 2000; Martin 1999; Sanguinetti 2000). Yarnit (2000), in a survey of learning towns and learning cities, states that in the UK, even with the new lifelong learning initiatives, there are still two parallel systems of education and training working side by side, but with little integration between the two, to the detriment of the learner. Does a similar situation exist here in Australia, where it has been voiced that VET policy development has taken place at great speed, with little grounded theory upon which to develop policy for the future or understanding of how learning actually occurs in the workplace context? Of particular concern is what Kearns and Papadopoulos (2000, p vii) describe as the gap in an outmoded policy framework within VET in Australia, where demand-side policies are no longer suitable for changing conditions in a state of flux. They advocate the development of new cross-sectoral learning paradigms that encompass an understanding of the local microcultures of regions.

Regional ecology: increasing participation and balancing metrocentrism

Butler and Lawrence (1996) documented the challenges for VET in regional Australia and discussed what they termed the effects of 'metrocentrism' of VET in local communities. Since then, the report of the Regional Australia Summit: Theme Group for Education and Training (1999, p 5) have identified three key areas of requirement for VET in regional Australia: tailoring a globally driven, lifelong learning directive to the needs of local regional communities in VET; development of community plans for education, training and lifelong learning as part of whole community strategies; and identifying and supporting the key 'initiators' or brokers with the spark, energy and enthusiasm.

For VET and providers of VET information services, often working under considerable resource restraint in the regions, a dilemma is that small business does not participate to any great extent in formal education and training; tailoring programs to their changing, diverse needs is difficult. Also, often on the demand side, small firm awareness of the existing education and training and information services to support them in regions could be improved. The Senate Standing Committee (1999) found that for the neighbouring region of Onkaparinga, small business was largely unaware of the existing assistance and information services available to them. Kearns and Papadopoulos (2000) have said that what is needed is a shared national vision for the future for lifelong learning, which is built on successful local learning partnerships between all VET stakeholders for what they term 'joined up policies' at the regional level. However, this is a considerable challenge if people work in what can be very competitive, isolating workplace cultures in both VET and small business.

Attitudes ecology: two disparate workplace cultures?

In terms of attitudes to lifelong learning, the ANTA (2000) study of marketing strategies for lifelong learning in Australia found the disinterested quadrant of learners still predominantly comprises the small business sector. Harris et al (1998) argued that small business is still rather an anomaly for VET. Kearns et al (1999) stated that to make practical, proactive changes for the future, we need to understand the tensions and bottlenecks to developing business community partnerships in lifelong learning in VET in Australia, to overcome much of the rhetoric associated with the lifelong learning debate. Some have argued that: VET has negated the role of the employer, choosing only to focus on the learning needs of the employee or trainee (Butler et al 1999); we know less about the learning needs of the employer, the nature of embedded workplace competencies, context-dependent learning and how it transfers (Misko 1999a); and we know less about the nature of collective competence as it relates to learning in the workplace (Beckett and Hagar 1997; Boud 1998; Childs and Regine 1998; Waterhouse et al 1999). Longworth (1996, 1999) states that for lifelong learning to be sustainable, we need to move beyond a stakeholder society to one of building trust and collaboration - but this is quite a challenge, as Mannion Brunt (1999) found particularly between education providers and employers, and as Fryer (2000) in a keynote speech to the Adult Learners Week Conference (2000) commented pertinently:

> … the cogs of our formal learning structures are totally our of sync with the cogs of small business.

Organisational ecology: the learning small firm: integral to a healthy community?

Ferrier (2000) has emphasised the need for standards in the accounting for intellectual capital in firms as a means of measuring not just economic outcome in organisations, but the capacity of their intangibles. Are Australian small firms learning organisations? How do they build knowledge capacity, and if not, how might that impact on developing learning partnerships? Small and very small business are responsible for the majority of the employment and innovation in regional Australia and play a vital, but often overlooked role in the infrastructure of regional communities (Kilpatrick and Bell 1998; MBCG 1999; SARDTF 1999; Senate Employment Workplace Relations and Small Business 1999).

The dominant discourse on learning has argued that small business has a long history of disinterest and a lack of participation and awareness of formal vocational education and training (Baker and Wooden 1995; Matlay 1999, 2000; Robinson 1999). An alternative voice argues quite to the contrary; that they have always been a visible presence informally, but that they show a preference for practical, business-focused learning on the job. Referred to by Becket and Hagar as 'phronesis', this tends to be undocumented, difficult to accredit and undervalued (Beckett and Hagar

1997; Boud 1999; Field 1999). To what extent does this mismatch in understanding of worthwhile knowledge hinder the development of learning partners in VET?

Information ecology: the essence of all equitable partnerships?

Matlay (2000) has written about the loss of learning, or knowledge degradation, in small firms that do not share information between people in the small firm workplace. Davenport (1998) argued that all learning organisations need a healthy information ecology, and Bruce (1998) has emphasised the importance of developing information literacy skills in the workplace.

On the supply side, studies in the UK have found better participation in lifelong learning is also about supplying independent, non-biased information to adults, meeting their individual information needs and tailoring this to the learner/client groups in the local community (DFEE 1999). Kearns and Papadopoulos (2000) have stated that our information networks on lifelong learning are not as developed in Australia as their overseas counterparts, both in the real and virtual sense. Some have voiced in the changes to the new VET frameworks. What has resulted is a fragmentation of VET programs and VET information services to small business community (Butler et al 1999; NCVER 1997) and a possible mismatch in tailoring VET to the small business community needs (DEETYA 1998).

Alternatively, on the demand side, there may also be information literacy skills gaps in the small firm sector. The Micro Business Consulting Group (1998) addressed the adoption of information technology by micro business and concluded it was critical for the survival of the sector. They found that the level of awareness of information services is still low; too much information can be a problem for the micro business, and the cost to the firm of finding the right information can be an impediment.

A changing skills ecology: the need for 'lifewide entrepreneurial skills'?

Kearns and Papadopoulos (2000) have argued for redressing the balance between the prowess and high esteem given to knowledge skills and the traditional assumptions of the low skill base attached to practical attributes and technical skills. Their argument is reinforced by the work of Beckett and Hagar (1997), Field (1998) and Hopkins (1998), which premised a shift in thinking from training to learning; redefining the nature of learning in the workplace context; and moving from 'an epistemology of knowledge to an epistemology of practice'. This has important ramifications for defining new skills sets for the small firm, for developing a new workplace learning paradigm (Boud 1998; Candy and Mathews 1998) and for building these lifelong entrepreneurial skills into training package development for the future.

Longworth (1996, 1999) has developed a framework of lifelong learning skills, but these skills are considered in need of redefinition in the context of small enterprises. If, as Matlay (2000) has argued, the employer dictates the extent of learning in the small firm, then there is a need to question what Lasonen (1999) terms the 'self efficacy or the life wide entrepreneurial skills base' of employers. How do you enculture a proactive ethos of lifelong learning in employers for themselves and their employees, when their main focus on a daily basis is small business survival? Matlay (2000) found most learning in the small firm is reactionary, ad hoc and single loop learning – there is very little double loop learning, with small firm employers reacting to the markets. If lifelong learning is an alternative to trial and error learning for the small firm, it needs to equate with business success and survival - and for small business it needs to be marketed in those terms.

A future virtual ecology: outward looking virtual learning partners?

Building capacity in regions and e-learning initiatives for the future includes the online communities of learning and outward looking virtual partners (Gurstein 2000). Small business like VET is now operating in a global, e-commerce economy (Australian National Training Authority 2000, May; Jones 1998) where there has been a considerable change through developments in information technology and new ways of trading, which are impacting on the marketplace for both the small firm and VET. Although small business may be adopting the Internet as an alternative shopfront, one line of argument has found there may be a considerable skills gap in Australian small business, particularly with the adoption of e-commerce and using electronic information to best advantage (Jones 1998). Jones concludes that the majority of small firms in Australia are predominantly still operated by what he termed: 'the 40 plus, analogue, entrepreneur'.

Kearns and Papadopoulos (2000) have found that a greater role is played by the industry bodies, unions, chambers of commerce and local associations in lifelong learning in other OECD countries, in comparison with Australia. E-commerce technology is not just a tool for the for-profit sector of small business community; it includes information networking, building business-to-business partners, business to consumer, and alternative ways of linking organisations and providing services. A significant question is: if there are skills gaps in making the best use of online technology in the small business sector, for profit and not for profit, how does that impact on developing virtual learning partners for the future?

Social capital ecology: building relations between people

There has been considerable discussion of social capital building in communities, and of measuring its added value to VET as an alternative to discussing VET in terms of economic rationalist frameworks only (Australian Bureau of Statistics 2000; Australian National Training Authority 2000; CRLRA 2000; Encel 2000; Schuller and Field 1998). Falk (1999) has stressed the importance of what he terms 'situated leadership' in regional communities, where he argues there is a 'growing recognition that solutions must be armed with both economic and social measures' (Falk 1998, p 3). He states there are two sets of resources that can be taken into account in developing social capital in communities: knowledge resources and what he terms identity resources - the willingness of people to work for the common good of the community.

This discourse is suggesting a reconceptualisation of education and training, which attempts to address the value of the social capital in the community; a capital that exists in the relationships between persons (Kilpatrick 2000) and 'situatedness' of the small firm and its informal learning networks within its own community (Falk 1998; Kilpatrick 1997; Kilpatrick and Crowley 1999). Essentially, as Kilpatrick and Crowley (1999) have stated, to what extent does learning in the small firm diffuse to the wider community, and for this study how does social capital capacity impact on developing learning partners between organisations? If there are skills gaps in small business, one could also ask to what extent does learning from learning partnerships in the community diffuse to the small firm?

Partnerships ecology: building synergistic capital between disparate organisations

In summary, the effect of competition policy in regional Australia has found a diminished degree of information networking and collaboration taking place between competing employment service providers (Senate Standing Committee Jobs for the Regions 1999). The research on learning partnerships suggests collaboration, trust and shared responsibility for learning is essential (CRLRA 2000; Encel 2000; Kearns 1996; Longworth 1996, 1999). But, has competition policy had a similar effect on the VET sector, and if so, how is that impacting on developing learning partners in the regions?

Encel (2000) is concerned about differences in how partners perceive their investment and about developing equitable, shared responsibility for learning. For the Adelaide Hills, building a diverse range of lifelong learning partnerships may be integral for sharing innovation and new ideas, and for developing an equitable learning community capable of coping with change in a region in South Australia that receives less public funded infrastructure and therefore needs to be more self sustaining (AHRDB 2000, p 5). The development of sustainable learning partnerships are integral to VET keeping pace with change in the regions (CRLRA 2000), but there still appears to be a mismatch in workplace cultures, and collaboration and trust can be difficult to build when both VET providers and small business are operating in a market-driven, 'survival of the fittest' economy. If lifelong learning is to be sustainable and resourced for the long term strategically in VET, as opposed to 'ad hocracy', then an integrated approach to small employer stakeholder involvement is a central issue, building trust and wider appreciation of what all parties can bring to a lifelong learning partnership.

Conclusion

This paper has discussed a community capacity building model of integrated learning ecologies for building lifelong learning partnerships with VET in Regional Australia, and argues that there are a number of issues of concern for small business before it can be said that small and micro business participate fully in lifelong learning. It is premised there is a need for a more locally driven, holistic, integrated lifelong learning model of education and training for the small business and VET learning partnerships in regional Australia. This involves developing and acknowledging the value to VET of the diverse range of VET/non-VET learning partnerships between all stakeholders, which are regionally situated and context-embedded in the community.

Acknowledgements

The author wishes to acknowledge The University of South Australia Centre for Research in Education, Equity and Work and The Centre for Lifelong Learning and Development, Flinders University, South Australia.

References

Adelaide Hills Regional Development Board (2000) Strategic plan: final draft, 1 July 2000 - 30 June 2004. Stirling, South Australia: AHRDB, p 5.

Allen J C (1999) Nebraska Model. Keynote presentation, Regional Australia Summit (background papers). Canberra: Commonwealth of Australia. http://www.dotrs.gov.au/regional/summit/program/background/index.htm (accessed May 2000).

Australian Bureau of Statistics (2000) Measuring social capital: current collections and future directions. Canberra: Australian Bureau of Statistics.

Australian National Training Authority (2000) National Marketing Strategy for Lifelong Learning. Employer survey: research report. Submitted to Australian National Training Authority by Quay Connection, The Research Forum, The Albany Consulting Group and McKinna et al. Queensland: Australian National Training Authority.

Baker M and Wooden M (1995) Small and medium-sized enterprises and vocational education and training. Queensland: Research Advisory Council, Australian National Training Authority.

Beckett D and Hagar P (1997) What would lifelong education look like in a workplace setting? In J Holford, C Griffin and P Jarvis (eds) Lifelong learning: reality rhetoric and public policy. Conference proceedings, 4-6 July. Guilford, UK: Department of Educational Studies, University of Surrey, pp 31-56.

Blunkett D (1998) The learning age: a renaissance for a new Britain. UK: Department for Education and Employment.

Boud D (1998) Providing for lifelong learning through work based study: challenges for policy and practice. In J Holford, C Griffin and P Jarvis (eds) Lifelong learning: reality rhetoric and public policy. Conference proceedings, 4-6 July. Guilford, UK: Department of Educational Studies, University of Surrey, pp 50-56.

Brown T (ed) (2000) Lifelong learning: making it work. An Adult Learning discussion paper. Australian Capital Territory: Adult Learning Australia.

Bruce C (1998) Information literacy in the workplace. In D Booker (ed) Information literacy: the professional issue. Proceedings of the third National Information Literacy Conference, University of South Australia and ALIA Taskforce, 8-9 December 1997. Adelaide, South Australia: University of South Australia Library, pp 29-42.

Butler E, Kempnisch B and Billett S (1999) Irreconcilable differences? Women in small business in VET. Leabrook, South Australia: National Centre for Vocational Education Research.

Butler E and Lawrence K (1996) Access and equity within vocational education and training for people in rural and remote Australia. Centre for Labour Studies, University of Adelaide.

Candy P and Matthews J (1998) Fusing learning and work: changing conceptions of workplace learning. In D Boud (ed) Current issues and new agendas in workplace learning. Leabrook, South Australia: National Centre for Vocational Education Research, pp 9-30.

Centre for Research and Learning in Regional Australia (2000) Managing change: the role for VET in regional Australia. Launceston, Tasmania: CRLRA, pp 39, 92.

Childs M and Wagner R (1998) A failure in imagination. Towards a critical review of VET sector orthodoxy: a polemic paper. Presented at The Importance of VET Research: Influencing Policy and Practice - the Australian Vocational Education and Training Research Association Conference, Sydney, February. AVETRA, pp 229-234.

Davenport T H (1997) Information ecology mastering the information and knowledge environment: why technology is not enough in the information age. New York: Haworth Press.

Department of Education, Training and Employment (2000) State Strategic Plan, 2001-2003 Vocational Education and Training. Adelaide, South Australia: Vocational Education Employment and Training Board.

Department of Education Training and Employment (2000) The State Strategic Plan for Vocational Education and Training 2000, Update Priorities and Targets. Vocational Education and Training Analysis and Planning Branch. South Australia: South Australian Government.

Department of Education Training and Employment (1999) The State Strategic Plan for Vocational Education and Training 1999, Update Priorities and Targets. Vocational Education and Training Analysis and Planning Branch. South Australia: South Australian Government.

Department of Employment, Education, Training and Youth Affairs (1998) Summary Report of the Small Business Professional Development Best Practice Program. Canberra: Department of Employment, Education, Training and Youth Affairs, Commonwealth Government.

Department for Education and Employment, UK (1998a) In K Shepperson (ed) Learning towns, learning cities. Sudbury, Suffolk: DFEE.

Department for Education and Employment, UK (1998b) The learning age and renaissance for new Britain. Sudbury, Suffolk: DFEE.

Department for Education and Employment, UK (1998c) In D Blunkett (ed) Practice progress and value. Learning communities assessing the value they add. UK: The Stationary Office, The Department for Education and Employment.

Department of Education Northern Ireland (2000) The Learning Agenda. DENI.

Department of Further Education and Employment (2000) Setting the agenda for the learning century. Learning partnerships for regeneration. Presented at the Learning City Network Conference, DFEE, UK, 8 March.

Department of Further Education and Employment (1999) The learning age: local information, advice and guidance for adults in England - towards a National Framework. UK: DFEE.

Doyle L, Kurth B and Kurr E (2000) Knowledge work and the rise of the office economy. Queensland: Australian National Training Authority.

Encel S (2000) Reflections on 'partnership'. Social Policy Research Centre Newsletter, no 78, December, pp 1, 4-5.

Enterprise Vocational Education Unit (2000) High performance enterprising Communities. South Australia: DETE.

Falk I and Kilpatrick S (1999) Re-focusing on learning regions. Regional Australia Summit, background papers. Canberra: Commonwealth of Australia. http://www.dotrs.gov.au/regional/summit/program/background/index.htm. (accessed May 2000).

Falk I (1998) Situated leadership: a new community leadership model. Discussion paper, series D2. Centre for Research and Learning in Regional Australia, University of Tasmania, Launceston.

Field L (1998) Shifting the focus from training to learning: the case of Australian small business. Australian and New Zealand Journal of Vocational Education and Research 6, no 1, pp 49-69.

Ferrier F (2000) International developments in measuring and reporting intellectual capital. Presented at Mobilising Resources for Lifelong Learning - CEET National Conference, Centre for Economics of Education and Training, Monash University, Melbourne, Victoria, 30 October.

Fryer R H (2000) Keynote presentation at Agenda for the Future: Lifelong Learning in Australia - Adult Learning Australia, Adult Learners' Week Conference, UNESCO, Adelaide, 7-9 September.

Gibb J (1999) The relevance of a training culture to small business in Australia. Paper presented at Creating Our Future: a New Training Culture for Australia - the conference on Lifelong Learning, Developing a Training Culture, August 1998. C Robinson and K Arthy (ed). Brisbane: National Centre for Vocational Education Research, pp 29-62.

Gore A (1999) Lifelong learning summit. United States of America, 12 January. In T Brown (ed) Lifelong learning: making it work, pp 32-34. Jamieson, Australian Capital Territory: Adult Learning Australia.

Gurstein M (ed) (2000) Community informatics: enabling communities with information and communications technologies. Hershey: Idea Group Publishing.

Harris R (et al) (1998) Juggling the messages in on and off the job training. Centre for Research in Education, Equity and Work. Adelaide: National Centre for Vocational Education Research.

Hawke G (1998) Learning workplaces and public policy. Paper presented at The Importance of VET Research: Influencing Policy and Practice - the Australian Vocational Education and Training Research Association Conference, February, Sydney.

Hopkins S (1998) The role for enterprises in lifelong learning. What can realistically be expected? Melbourne: DVET, University of Melbourne.

House of Representatives Standing Committee on Primary Industries and Regional Services (2000) Time running out: shaping Australia's regional future. Canberra: Parliament of Australia.

Jones T (1998) Taking the plunge: small business attitudes to electronic commerce. Woolcott Research, AEBN.

Kearns P and Papadopoulos G (2000) Building a learning and training culture: the experience of five OECD Countries. Adelaide: National Centre for Vocational Education Research.

Kearns P et al (1999) Lifelong learning. VET in the learning age (volume 1 and 2). Leabrook: National Centre for Vocational Education Research.

Kearns P, Murphy, M and Villiers G (1996) Industry education partnerships: innovation and learning. Melbourne: State Board of Victoria, Office of Training and Further Education.

Kennedy H (1997) Learning works: widening participation in further education. Coventry: The Further Education Funding Council.

Kilpatrick S (2000) How social capital facilitates learning outcomes for small family business. Discussion Paper D/2 2000, CRLRA Discussion Paper Series. Launceston: University of Tasmania, Centre for Research and Learning in Regional Australia.

Kilpatrick S and Crowley S (1999) Learning in small business. Discussion Paper D/1 1999, CRLRA Discussion Paper Series. Launceston: University of Tasmania, Centre for Research and Learning in Regional Australia.

Kilpatrick S and Bell R (1998) What's different away from the rat race? Issues for VET in non Metropolitan Australia. Paper presented at The Importance of VET research: Influencing Policy and Practice - the Australian Vocational Education and Training Research Association Conference, February, Sydney, pp 82-91.

Kilpatrick S and Bell R (1998) Support networks and trust: how social capital facilitates economic outcomes for small businesses. CRLRA Discussion Paper Series.

Launceston: University of Tasmania Centre for Research and Learning in Regional Australia.

Lasonen J L (1999) Entrepreneurship and self employment training in technical vocational education. Keynote statement at Lifelong Learning and Training: A Bridge to the Future - the second International Congress on Technical and Vocational Education, Seoul, Republic of Korea, 26-30 April 1999. Berlin: Unevoc, p 2. http//:www.unevoc (accessed September 2000).

Law M (2000) Putting the political back into community education. Adult Learning Commentary no 25, 6 September. http://www.ala.asn.au/commentaries (accessed September 2000).

Longworth, N (1999) Making lifelong learning work: learning cities for a learning century. London: Kogan Page, p 6.

Longworth N and Davies W K (1996) Lifelong learning. New vision, new implications, new roles for people, organisations, nations and communities in the 21st Century. London: Kogan Page, p 129.

Mannion Brunt J (1999) Employer involvement in lifelong learning. In P Oliver (ed) Lifelong and continuing education: what is a learning society? Monitoring Change in Education Series. Aldershot: Ashgate Arena, pp 215-229.

Martin I (1999) Lifelong learning stretching the discourse. In P Oliver (ed) Lifelong and continuing education: what is a learning society? Monitoring Change in Education Series. Aldershot: Ashgate Arena, pp 181-194.

Matlay H (2000) Organisational learning in small learning organisations: an empirical overview. Education and Training, vol 42, no 4/5, pp 202-211.

Matlay H (1999) Vocational education and training in Britain: a small business perspective. Education and Training, vol 41, no 1, pp 6-13.

Matlay H (1997) The paradox of training in the small business sector of the British economy. Journal of Vocational Education and Training, vol 49, no 4, pp 573-587.

McDonald R et al (2000) The transition from initial education to working life. A status report on Australia's progress. Queensland: Australian National Training Authority. http://www.anta.gov.au (accessed October 2000).

McGregor J and Gomes C (1999) Technology uptake in small and medium-sized enterprises: some evidence from New Zealand. Journal of Small Business Management, vol 37, no 3, pp 94-102.

Micro Business Consultative Group (1998) Under the microscope: micro businesses in Australia. Canberra: Department of Workplace Relations and Small Business, p 24.

Ministry of Education Finland (1997) National lifelong learning strategy.

Moy J and Mc Donald R (2000) Analysing enterprise returns on training. Adelaide: National Centre for Vocational Education Research.

National Centre for Vocational Education and Research (1998) Small business and vocational education and training. Research at a Glance Series. Adelaide: National Centre for Vocational Education Research.

National Centre for Vocational Education and Research (1997) Developing the training market of the future: a review of research literature prepared as a submission to the Australian National Training Authority. Adelaide: National Centre for Vocational Education Research.

Noble C (1996) A comparative analysis of strategies to increase the role of employers in training and development. Australian and New Zealand Journal of Vocational Education Research, vol 4, no 1, pp 68-95.

Oliver P (ed) (1999) The concept of lifelong learning. In P Oliver (ed) Lifelong and continuing education: what is a learning society? Monitoring change in education series. Aldershot: Ashgate Arena.

Office of Regional Development (2000) Draft Strategic Plan. Adelaide: Government of South Australia.

Office of Regional Development (2000) Directions for South Australia Department of Primary Industries and Resources. Adelaide, South Australia.

Organisation for Economic Co-operation and Development (2000) Learning city-regions. Paris: Organisation for Economic Co-operation and Development.

Organisation for Economic Co-operation and Development (1996) Lifelong learning for all. Paris: Organisation for Economic Co-operation and Development.

Purcell R, Bellew, M J and Ross S (2000) Turning on learning communities: assisting communities to grow. Adult and Community Education Unit (ed). Adelaide: DETE, Australian National Training Authority.

Ralph D W (1999) Lifelong learning: universal hoax or path to salvation? In South Australian Institute for Educational Research Seminar Series, 5 August. Adelaide: South Australian Centre for Lifelong Learning and Development, Flinders University of South Australia.

Report of the Theme Group Education and Training (1999) Regional Australia Summit: Background Papers. Canberra: Commonwealth of Australia. http://www.dotrs.gov.au/regional/summit/program/background/index.htm (accessed May 2000).

Robinson C and Arthy K (1999) Lifelong learning developing a training culture. Papers presented at the concurrent sessions on research into a training culture at Creating Our Future: A New Training Culture for Australia - conference, Brisbane, August 1998. Adelaide: National Centre for Vocational Education Research. Australian National Training Authority.

Robinson C (1999) Promoting a training culture in industry. In C Robinson and K Arthy (eds) Lifelong learning developing a training culture. Brisbane: National Centre for Vocational Education Research, pp 1-21. Papers presented at the concurrent sessions on research into a training culture at Creating Our Future: A New Training Culture For Australia - conference, August 1998.

Sanguinetti J (2000) Coming to grips with ANTA's lifelong learning strategy. Adult Learning Commentary no 13, 7 June. http://www.ala.asn.au/commentaries (accessed September 2000).

Schuller T and Field J (1998) Social capital, human capital and the learning society. International Journal of Lifelong Education, vol 17, no 4, pp 226-235.

Seiichiro M et al (1992) Lifelong learning in Japan: National Federation of Social Education in Japan.

Selby Smith C (1999) The impact of research on VET decision making. Adelaide: National Centre for Vocational Education Research.

Senate Employment, Workplace Relations, Small Business and Education References Committee (1999) Jobs for the regions: a report on the inquiry into regional employment and unemployment. Canberra: Commonwealth of Employment, pp 89, 95, 103.

South Australian Government (1999) Regional Development Taskforce. Adelaide, South Australia.

Waterhouse P, Wilson B and Ewer P (1999) The changing nature and patterns of work and implications for VET. Review of Research Series. Adelaide: National Centre for Vocational Education Research, pp 30, 42.

Yarnit M (2000) Towns, cities and regions in the learning age. DFEE Learning City Network. London: The Network for Learning Communities and Local Government Association.

Contact details

Karen Plane
Research student
Centre for Research in Education Equity and Work
University of South Australia
Holbrooks Rd, Underdale
South Australia 5032
Email: karenplane@picknowl.com.au

Keeping the bosses off my back: power and knowledge in first line management discourse

Zoë Reid

University of South Australia

First line managers, as their name implies, are employees' first point of contact with the hierarchy of an organisation. Traditionally, first line managers gained this position through their experience and expertise on the job. Their career pathway in an organisation was developed by getting their work areas to meet production quotas and studying Management Certificates part time at technical and further education (TAFE) colleges. The entry level TAFE certificate is Certificate IV in First Line Management. Many of the blue collared participants who embarked on this certificate had never undertaken formal qualifications.

The Federal government's attention was drawn to the education of first line managers by the publication of *Enterprising nation: renewing Australia's managers to meet the challenges of Asia-Pacific century*. This document is usually referred to as the Karpin Report. A key finding of the Karpin Report was:

> Front line Managers [first line managers] have the most immediate impact on productivity and quality output of the work force ... [but] the majority of them are not being prepared for the [future] challenges. (Sheldrake and Saul 1995, p 33)

The significance of the Karpin Report was to expand the national training reform agenda to incorporate the education and training of managers within organisations. The Frontline Management Initiative was born. This instigated workplace learning methodology to develop management skills within organisations. Another Federal and State government response was to encourage organisations to train and develop their first line managers by giving them financial incentives through traineeships. A traineeship allows a first line manager to gain access to training within his/her organisation. Many first line managers have not participated in formal training, hence I was interested in how they made sense of their roles and the training they were doing.

Purpose

My original research interest was to study the language, literacy and numeracy skills needed by trainee first line managers. However, isolating language, literacy and numeracy as discrete units of knowledge without a context creates a deficit model. This model creates the view that language, literacy and numeracy at work is purely a set of individual skills necessary to perform a particular task. It reinforces the assumption that there exists a relationship between inadequate literacy skills and people's abilities to do their jobs (Castleton 1999, p 11). The purpose of this paper is to offer a broader view of language, literacy and numeracy. Language, literacy and numeracy needs to be understood in terms of social practice and the creation of social identities (Gee et al 1996, p 4). Important to this view is how power and knowledge are used to construct social identities and social practice.

Theoretical background to this paper

Social practice

The concept of social practice places language, literacy and numeracy within social and cultural contexts. Social practices are embodied in the way people, talk, listen, read, write and hold certain values, attitudes and beliefs about the world (Gee 2000, p 1). People create social identities about the way they live and work through social practice.

Discourse

Another important concept in broadening the view of language and literacy is Discourse. A Discourse is a set of related social practices that includes ways of interacting, listening, speaking, reading, writing and valuing a particular social identity. Gee et al (1996, p 10) use Discourse with a capital D to distinguish it from 'discourse', which means a 'stretch of spoken or written language'. A Discourse is shaped and constrained by social structures, such as education, law and workplaces. It also constructs 'social identities'; relationships between people, and systems of knowledge and beliefs (Joliffe, p 340). Knowledge is knowing the social practices defined by the Discourse, while power is knowing how to use the social practices constructed by the Discourse.

Power and knowledge are not separate from Discourse; they are intertwined and can be used to comply with the Discourse or resist it (Kendall and Wickham 1999, p 51). How power and knowledge is used becomes important when constructing social identities within the Discourse. Power and knowledge is embedded within the social practice. Being 'literate' is being able to use your knowledge of social practices to be part of the social identity defined by the Discourse. I provide examples of this later in this paper when I look at the Discourse of fast capitalism and first line management. It is important to remember that people are not confined to one particular Discourse; there are many ways to operate in society. Each Discourse has its social practice and its literacies. People operate in more than one Discourse at a time. In other words there are multiple literacies.

The Discourse of fast capitalism

Before looking at fast capitalism let us identify the key features of the old work order, or as Cope and Kalantzis (1997, p 28) described, the concept of 'Fordism'. The Fordist organisation used 'mass production' to produce vast qualities of manufactured items, and unskilled or semi-skilled workers to produce them. The management structure was bureaucratic and hierarchical within these organisations (Cope and Kalantzis 1997). Knowledge and skills were broken into bits and pieces. Production workers only knew the tasks required to do their job, not the reasons why their job was important. In this structure, a work area was an isolated community of practice lead by a supervisor. Only senior management knew the whole picture of the organisation (Gee 2000, p 4).

The nature of work has changed. The new work order of fast capitalism has changed organisations.

Gee (2000, p 6) identifies the key features of fast capitalism as:

- The continual emphasis on the flexible transformation of people, practices, markets and institutions.

- Crossing and destroying borders between people, practices and institutions.

- The creation of a seamless organisation where people are aware of whole process, not just bits and pieces.

The organisation becomes a whole community of social practices. These concepts can be expanded and applied to manufacturing industry by studying the work of Gee et al (1996), who identify the Discourse of fast capitalism in *The new work order: behind the language of the new capitalism*. Gee et al (1996, p 6) identify that this new capitalism is based on the design, production and marketing of 'high' quality goods and services to saturated markets. In order to survive, the developed world has to produce perfect goods and services to 'niche' markets. Fast capitalist texts place 'the customer' as the primary concern of the organisation.

The basis of the Discourse of fast capitalism is the concept of quality put forward by USA quality gurus like W Demming. Striving towards, and maintaining, International Standard Organisation 9000 Quality Standard endorsement has been embraced by manufacturing organisations who want to compete in the global market. This concept places the emphasis on satisfying the customers' needs. 'Serving the customer' becomes the focus of the whole organisation. 'Total Quality Control' and the creation of a quality system enables workers to make decisions on what goods and services from their areas are acceptable to the customer. A smaller, less hierarchical and bureaucratic organisation can respond more quickly to the needs of the customer. 'Lean Manufacturing' ensures that valuable resources like materials, machinery and people are not wasted. If you do the job 'right the first time', rework will not occur, which will result in less waste and increased efficiency in the organisation. This means an organisation can keep its costs down and provide a cheaper product for the customer. 'Just in Time Production' enables a manufacturing organisation to have the right part at the right place in the right time, which increases the organisation's efficiency, enabling a quick response to the needs of the customer.

Fast capitalist texts create the concept of a new workforce and new social practices for the workforce. This workforce is 'knowledge-based' and 'empowered to make decisions about the needs and concerns of their customers'. People work in teams and are multi-skilled. This includes taking on tasks that were previously part of middle management, like recording production numbers and doing quality checks. New social identities are being created by fast capitalism: production workers are team members, supervisors become team leaders, and senior management become leaders. These new social identities create new Discourses too.

Constructing a fast capitalist Discourse for first line managers

In Fordist notions of old capitalism (Cope and Kalantzis 1997, p 28), first line managers were traditionally 'Supervisors'. A Supervisor was like a sergeant in the army, conveying orders about how many products were to be produced and not giving a damn about who produced them or the quality of their production (Clegg and Palmer 1996, p 2). In the new work order of fast capitalism, a 'Supervisor' becomes a 'Team Leader' who uses interpersonal skills to help the team achieve their goals, which include producing the best quality goods and services with no injuries. The construction of a fast capitalist Discourse for first line managers in Australia originated with the *Karpin Report*.

First line managers changing role

The *Karpin Report* was the first detailed Australian study into the roles and skills needed by Australian managers to continue propelling Australian industry into the post-Fordist restructured area of the 'new work order' of fast capitalism. Important to the construction of a fast capitalist Discourse of first line managers is the research conducted by Sheldrake and Saul in their chapter of the *Karpin Report*. They studied the changing role and skill needs of first line managers in 19 Australian organisations by interviewing senior managers and getting first line managers to fill out a questionnaire. They noted:

> The role of First line Managers has shifted from 'cop to coach'. The major responsibilities of today's First line Managers relate to planning the work of teams to satisfy its customers, adhere to corporate values, and meet qualitative and quantitative performance targets allocating tasks and motivating and training team members to give their best. (Sheldrake and Saul 1995, p 667)

The evidence and insights gained by Sheldrake and Saul's (1995) research provided me with a starting point to view the construction of a fast capitalist Discourse of first line management.

The skills and knowledge first line managers need to fulfil their new role in a fast capitalist workplace

Sheldrake and Saul went on to summarise the skill competencies that first line managers need to fulfil their changing roles

> ... there has been a significant increase in the importance of leadership, communication, interpersonal and learning competencies as First line Managers must establish, explain and win team members' commitment to objectives and priorities, more actively deal with conflict and poor performance, consult with clients and other teams and cope with a wide variety of new demands often requiring that new skills be learned quickly. They must be proactive and resourceful problem solvers with the persistence to follow through to make solutions. (Sheldrake and Saul 1995, p 667)

The key features embedded in Sheldrake and Saul's findings describe the Discourse of fast capitalism. This Discourse focuses on flexibility, change and innovation at all levels of the organisation (Gee et al, p 56). 'Flexibility' means people are required to do multiple tasks in their jobs - the catch phrase is 'multi-skilled'. 'Change' means handling changing priorities and objectives in an organisation to respond to the needs of the customer. 'Innovation' means being able to creatively solve problems that affect quality and efficiency in the organisation.

Sheldrake and Saul went on to identify that the major obstacle to effective organisational change expressed by senior managers and first line managers related to 'the lack of understanding of the need for change and the way in which various components of change were intended to interrelate to produce a new more successful organisation' (Sheldrake and Saul 1995, p 668).

First line managers viewed change as ad hoc, unsystematic and not within their control - and they were not prepared for it. They were not identifying with the organisational social practice of fast capitalist Discourse imposed on them and their work team by senior management. This dilemma is not unusual in the new work order.

In order to overcome this problem, Sheldrake and Saul advocated that the development of first line managers should be an ongoing process that is integrated with the strategic planning and change of the individual organisation. In others words, consistent development of first line management skills needs to be part of the continued re-engineering process within the organisation. This process could be ensured if senior management were more directly involved with the training and development of first line managers. This is a strategy to create the seamless organisation, where common goals and values about the organisation are held by its members.

Sheldrake and Saul went on to recommend

> ... emphasis in skill acquisition should be on developing a flexible set of learning modules that can be readily tailored to the needs of the individual industries, organisations and types of First line Managers. (Sheldrake and Saul 1995, p 670)

The Frontline Management Initiative (FMI) was born from the *Karpin Report*. FMI promotes the training of first line managers through workplace learning methodology. First line managers would be coached and mentored into the visions and missions of the organisation by senior management. They would participate in the direction of organisational change through action learning sets. In the Discourse of fast capitalism, this methodology is contributing to the replication of the seamless organisation, with 'shared values', 'common sense of direction' (Cope and Kalantzis 1997, p 122), and the creation of a learning community. The FMI may provide the model for the transformation of management in an organisation into responsive members of the fast capitalist, globally competitive new work order. The reality can be different. Workplace learning methodology requires time and an open-ended structure. These are commodities which are difficult to obtain in the ever changing dynamic, lean workplace. First line management training has been outsourced.

The Discourse of fast capitalism seeks to create and sustain social identities tied to distinctive ways of thinking, interacting and valuing. Sheldrake and Saul identified the fast capitalist Discourse of first line management through identifying the new roles (social identities) and skills (social practices) required. Workplace learning methodology is a mechanism which can replicate the organisational culture and is an important part of the Discourse. Mentoring and coaching by senior management would ensure that first line managers become 'people like us' within the organisation. Workplace learning has been promoted by both State and Federal governments and management schools. However, as Gee et al (1996, p 56) state '... in the case of any Discourse we can make a distinction between the espoused goals and what is emerging in practice'.

Data for this structure (methodology)

The evidence for this research is essentially qualitative and gathered from June 2000 to December 2000. It is drawn from extensive, formal and informal discussions with colleagues at Workplace Education Service, my own workplace practice, and trainee first line managers in three sites covering manufacturing and community services. A 'trainee', in an industry context, is a person who is learning a new set of skills and knowledge (competencies) which is linked to a formal qualification. Until December 2000 the Federal government allowed organisations to access traineeship financial incentives for existing employees. Many organisations embarked on traineeships to access formal qualifications and develop the management skills of their current first line managers.

In order to access first line managers' opinions from a cross-section of workplaces, I used these three broad questions. These questions were used as springboards for discussions on training and first line management.

1. What kind of training would be helpful for you in the workplace?
2. How will it help you in your job?
3. What will be different as a result of the training?

I used this information to identify the social practices that first line managers construct in forming their own social identities in the Discourse of first line management. Sheldrake and Saul (1995) provided me with a starting point to view the construction of a fast capitalist Discourse of first line management. Their evidence, both quantitative and qualitative, is crucial in identifying the dichotomy between what is supposed to happen and what is actually happening in the Discourse of first line management.

The social position of first line managers within the Discourse of fast capitalism

The organisational fast capitalist Discourse is constructed by senior management within the organisation. In this Discourse the shopfloor or work area is seen as part of the organisational Discourse, not a separate community of practice (Gee 2000, p 6). The construction of this Discourse does not acknowledge the social structure of the work area and the social practices a first line manager engages in order to enact her/his power and knowledge. First line managers' power and knowledge in both Discourses is constructed through their social identities on the shopfloor. In this study, a first line manager identifies the knowledge of work practices that are needed in their job:

'You've got to keep the bosses off your back'.

In other words: do the tasks that you are required to do, so senior and production management will not complain. However, this view does not acknowledge the social identity and practices first line managers have within their own work areas. They are the key holders of power and knowledge about their section, through the allocation of tasks and being the interface with senior management and production. They can be viewed as knowledge filters to their work teams (Gee et al 1996, p 38). Their power is based on the social practices and constructs of the shopfloor. First line managers' social identities on the shopfloor construct their social identities within the Discourse of management. The social constructs of the Discourse of first line management straddles two Discourses: the Discourse of the shopfloor and the Discourse of management within an organisation. They are the interface between senior managers and the shopfloor. First line managers can be acted upon to get people in their work groups to comply with the organisation's direction, like the requirements of 'Total Quality Control' or 'Just in Time'. The data collected in this study suggests first line managers' current social practice in the Discourse of the work area is determined by the following themes:

1. Downsizing and the casualisation of the workforce;
2. Compliance to government legislation; and
3. Satisfying the productivity outcomes of the organisation.

The following discussion captures these three trends in the context of a shifting framework for workplace learning, which has been articulated by Sheldrake and Saul. The point of this research is to show how conditions for training have changed over the last five to eight years.

1. Downsizing

In sites covered by this research, the impact of organisational downsizing and casualisation has had the most dramatic impact on first line managers. Downsizing is not the overt dismissing of groups of workers as happened in the Fordist notions of industry. Downsizing is achieved through natural attrition and not replacing workers who leave an organisation with permanent employees. A number of the first line managers taking part in this study observed that when an older, experienced worker retired from the organisation he/she was replaced by casuals. Downsizing and the casualisation of the workforce on the shopfloor has brought about the most dramatic changes to the social practices of first line managers since Sheldrake and Saul did their study. Their research was completed in the early 1990s. What is striking about the first line managers they questioned is that the majority of teams these first line managers lead were stable and permanent. Downsizing was from the ranks of middle management, not the shopfloor (Sheldrake and Saul 1995, p 694). Middle management downsizing fits into the Discourse of fast capitalism with smaller, less bureaucratic organisations being more responsive to the needs of their customers. Workers in teams can take on these previous middle management tasks; ie learn more skills, and through becoming multiskilled, be empowered to make decisions in the organisation. However, downsizing and the increased casualisation of the workforce undermine fast capitalist notions of teams and multiskilling of the workforce. The casual worker is hired for the shift to fulfil a production need and is assumed to have the skills that are needed to perform the tasks required of them. The concept of skill 'decomposes' jobs into discrete components, without contextual reference to the work area.

> The skilled worker appears to be one who can move freely between settings carrying his or her skills like much luggage, and transferring those skills effortlessly into new contexts (Darrah 1997, p 252).

The assumption here is that if a worker has a particular set of skills, he/she can do the job. For example, if you can weld, you can weld in any factory environment. This view does not take into account the context of shopfloor and the particular social practices and social identities created by every different shopfloor environment . The first line managers in manufacturing industries taking part in this research felt the impact of casual workers over the last five years. The topic of 'casuals in the workplace' brought about heated discussions in training groups, because casual workers had to be trained to do the job. A common theme was expressed by a first line manager

> You can't assume anything. Even if they have the skills you still have to show them what to do.

Each shopfloor is a unique community of practice. A casual welder has to learn the social practices of each new shopfloor environment. Some of these social practices include customers' specifications for a particular task, safety hazards unique to the shopfloor or to the task, and 'Who do I need to notify if the equipment does not work'? The first line manager is in charge of the new shopfloor community of practice in which the casual worker participates. The first line manager has to make sure that the casual worker complies to the social practices created by the shopfloor. As one first line manager in a manufacturing site remarked on the topic of casual workers:

> You train a guy up one day and you don't know if you are going to get him back the next. If you don't get him back you've got to train yet another new bloke. It doesn't matter if they can already weld you've got to make sure they can do the job you want them to do. Besides each machine is different.

The increased casualisation of the shopfloor workforce has highlighted the need for first line managers to know legislation.

2. Government legislation

The casualisation of the workforce has increased the demand on first line managers to be familiar with OHS&W legislation, Equal Opportunity legislation and the Workplace Relations Act. Compliance to government legislation plays an important part in the dichotomy of the new work order of fast capitalism and traditional work practice. Government legislation promotes Fordist organisation of the power knowledge relationships in an organisation. The role of a first line manager is one of a 'cop' - to use Sheldrake and Saul's analogy. The legislative structure forces social relations and social interactions in the work area. The first line manager becomes legally responsible for social practices.

This dichotomy can be illustrated by looking at part 19, section 3 of the South Australian OHS&W legislation, which refers to the duties of employers and their responsibilities to managers and supervisors. A supervisor in this context is a first line manager.

> An employer shall as far as reasonably practical ensure that any manager or supervisor is provided with such information, instruction and training as necessary to ensure that each employee under his or her management or supervision is while at work so far as reasonably practicable safe from injury and risks to health and monitor working conditions at any workplace that is under the management and control of the employer. (OHS&W Act 1986)

First line managers have responsibilities as outlined in Section 1.3.5 of the Occupational Health Safety and Welfare Consolidated Regulations (second edition, 2000). They have to demonstrate the following:

- make sure they know where their employees are at all times
- encourage employees to report workplace accident and hazards
- pass on information to maintenance about unsafe or damaged equipment
- find adequate tasks for workers returning to work in their section
- ensure that workers are allocated tasks that they are trained to do.

(OHS&W Consolidated Regulations 2000, second edition, Part 1, Division 1.3.6)

The context of this knowledge is the first line manager's team and the production environment. The power first line managers have is the ability to pass on OHS&W knowledge about their team and the production environment to senior management, and conversely pass on OHS&W and production information from senior management to their team. They are performing their traditional role in a linear organisation. This role is reinforced by the OHS&W legislation through legal penalties. In the Discourse of fast capitalism, the creation of a team environment would allow for first line management power and knowledge about OHS&W to be devolved to the team. After all, team members know their equipment and can perform the skills needed to complete the tasks. However, the concept of a team environment requires a stable, permanent workforce; the devolution of first line management power and knowledge to teams is not possible if the team's membership is constantly changing. The contextual knowledge and power of the workplace environment remains with the first line manager. This contextual knowledge can be as simple as knowing who is the most reliable member of the maintenance crew to get the job done.

3. Satisfying the productivity outcomes of the organisation

Sheldrake and Saul (1995, p 677) identified that the major concern for first line managers was measuring production units or getting the product out the door. Getting the right product out the door, with no reworks, is still the major concern. This is how their performance is measured, ie whether they can organise their team to produce what is needed, when it is needed, the first time. The assumptions are that the first line manager's team has the necessary skills to do the tasks and knows the standards expected. In the fast capitalist Discourse, getting the product out the door with no reworks is a team responsibility. The team members share the vision and mission of the organisation, and producing a quality product the first time is part of the collective vision for the organisation. The reality is that workers in teams may do the tasks of checking the quality of the product and delivering the right number of parts, but the responsibility for organising and making sure it is achieved is that of the first line manager. This responsibility has become more important with the casualisation of the workforce. Again, the first line manager has to take responsibility for making sure casual workers produce the right part at the right time to the right standard, through making sure that those workers are trained to do the task to the organisation's standards.

Training of first line managers or the creation of first line managers' social identities

Governments since the 1980s have given organisations incentives to become part of fast capitalism. This was initially done through: Award Restructuring; more recently, the Workplace Relations Act; and through the various evolutions of the Training Reform Agenda. The need for management training became the catchcry of government and industry bodies in the mid- to late-1990s, just as Award Restructuring and worker training was the catchcry of the late 1980s and early 1990s. Training can be viewed as an important part of redesigning and creating a new workplace culture and helping to establish new identities for its participants in the Discourse of the new work order (Castleton 1999, p 13). It can also be seen as reinforcing power and knowledge identities and relationships within organisations.

In South Australia many organisations were attracted to first line management training through a government incentive, a traineeship. This traineeship used the TAFE Certificate IV First Line Management. The Certificate IV is a basic management certificate aimed at the old Fordist-style supervisor (Cope 70). This Certificate became a traineeship at the request of an organisation. The organisation wanted their first line managers to receive training, but did not have the time or structure to implement workplace learning methodology. The Certificate IV in First Line Management provides these trainees with a management qualification in a traditional lock-step approach.

Training reinforces the knowledge and power relationships between senior management and first line managers. Senior management can select who participates in the training and contribute to the content of the course. They can shape 'the people like us in the organisation'. However, the training allows first line managers from the same organisation to define their own identities in relation to the Discourse of first line management by sharing social practices. How do first line managers define themselves in relation to the training they are currently doing? Is it any different from what Sheldrake and Saul identified as the skills they require?

Creating a social identity of first line management through training

At the beginning of this paper, I argued that language and literacy had to be viewed as social practice in a Discourse. Training is an important part of designing and creating social identities by giving participants access to knowledge of social practice. It can empower participants to define their own social identities within a Discourse, by enabling them to identity the social practices they need to resist or comply with in the Discourse. In other words, training can give the participants the opportunity to identify literacies they need to operate in the Discourse. This view of literacy seeks to empower participants. The following is a lists of what 35 trainee first line managers define as social practices of first line managers. I have not quantified the responses, and they are in a random order of importance:

- Computer or IT skills - this was seen as important to access the paper work and future career options.

- Personal communication skills - this was seen as an important part of dealing with senior management and with fellow workers. These skills ranged from public speaking skills and assertiveness to motivating people. (I believe these views reflect the position first line managers have in the current Discourse of fast capitalism; they straddle the organisation and the shopfloor Discourses.)

- Time management, allocating tasks and resource priorities.

- Political awareness within an organisation - the fear of the new kid on the block amongst the old guard managers.

- Problem solving and understanding company systems. (I found it interesting that these two social practices were always grouped together by the first line managers.)

- Study skills - to access more management training. (I see this as acquiring knowledge of management social practice from outside the organisation.)

Fast capitalist social practices in first line management training

Sheldrake and Saul (1995, p 667) identified the following competencies that first line managers need to fulfil their changing role:

- leadership
- interpersonal communication
- dealing with conflict and poor performance
- explaining and winning teams' commitment to objectives and priorities
- proactive and resourceful problem-solving.

These social practices are similar to the social practices I have identified: they are the social practices of the shopfloor. The first line manager's power and knowledge of the shopfloor could be used to get workers to comply with the Discourse of fast capitalism. However, social practices are also defined by the social structure and context of the Discourse. Sheldrake and Saul defined the social practices of the Discourse of first line management where the social structure was constant; a 'Supervisor' could be totally transformed into a 'Team Leader' through workplace learning methodology by senior management, to create the 'seamless organisation'.

The Discourse of first line management in 2001 (findings of my research)

The current Discourse of the shopfloor is determined by:

- Downsizing and the casualisation of the shopfloor
- Compliance to government legislation
- Satisfying the production outcomes of the organisation.

The 'team environment' of the Discourse of fast capitalism is not a reality on the shopfloor. The transformation of the first line manager from 'cop' to 'coach' is restrained by the current constructs of the shopfloor.

Implications of this research

This research offers a broader definition of literacy for educators in the field. It also gives educators and trainers in the field of management food for thought on the construction of first line managers' social identities through social practice. I use the concept of management literacies.

The new Business Services Training Package will be launched in 2002. First line management and frontline management will be incorporated. Will there be opportunities for first line managers to identify their training needs within the package? Will the training being offered by Registered Training Organisations using this Training Package be flexible to accommodate the social practice needs of first line managers in different organisations? This could include short courses linked to the Certificate and the context of the workplace - eg time management - as well as longer, research-based courses that involve senior management too.

I see the opportunity for further research in the context of the 'shopfloor'. In particular:

- Investigation of the impact of a casual workforce on the shopfloor and the 'concept of generic skills'. These are interesting ideas, particularly in relation to Training Packages.

- What follows 'change'? The concept of organisational change has been part of government policy and organisations rhetoric for at least 10 years. It is very important in the Discourse of fast capitalism. Is change stopping, changing direction? Is it good for us? How do we know what has changed?

References

Castleton G (1999) Understanding work and literacy: (e)merging discourses at work. Language Australia Adult Literacy Research Network.

Clegg S R and Palmer G (ed) (1996) The politics of management knowledge. Sage Publications.

Cope B and Kalantzis M (1997) Productive diversity: a new, Australian model for work and management. Pluto Press.

Darrah C (1997) Complicating the concept of skill requirement. In G Hull (ed) Changing work, changing worker: critical perspectives on language, literacy and skills. State University of New York Press.

Gee J (2000) The new literacy studies and the 'social turn'. http://www.schools.ash.org.au/litweb/page300.html.

Gee J, Hull G and Lankshear C (1996) The new work order: behind the language of the new capitalism. Allen and Unwin.

Hull G (1997) Hearing other voices: a critical view of popular views of literacy and work. In G Hull (ed) Changing work, changing worker: critical perspectives on language, literacy and skills. State University of New York Press.

Kendall G and Wickham G (1999) Using Foucault's methods. Sage Publications.

Occupational Health, Safety and Welfare Act 1986 (Reprint No 4) (1990) South Australian Government Printers.

Sheldrake P and Saul P (1995) Change and the first line manager: a study of the changing role and skills of first line managers. In Enterprising nation; renewing Australia's managers to meet the challenges of Asia-Pacific century, vol 1, chapter 16.

Contact details

Zoe Reid
Research student
Education
University of South Australia
Email: zoe23@ozemail.com.au

Learning to learn online - Box Hill Learning Network

Kerry Renwick

Box Hill TAFE, Victoria

An initiative funded by the Office of Post-compulsory Education, Training and Employment (Victoria)

The Box Hill Learning Network (BHLN) was funded in September 2000 by the Office of Post-compulsory Education, Training and Employment, Victoria (PETE). The aim of the funding application was to

> develop a robust learning model that will have longevity and widespread application in the participating organisations. ... to develop a learning culture that is accessible to groups of workers who have previously had difficulty accessing formal education...
> (Application Document 2000, p 3)

The project has two arenas of activity – i) to enable the BHLN to become sustainable and ii) to develop an online learning system that caters for the needs of the network.

The partners in the BHLN are Box Hill Institute, Box Hill Hospital, Box Hill Senior Secondary College, the City of Manningham and the City of Whitehorse. As a group these organisations have not previously worked as a whole. However each has had varied dealings with other partners such as through work-related networks or vocational education and training (VET) relationships.

Within this partnership the BHLN aims to i) develop a community of practice; ii) deliver work-based training through the use of online learning; and iii) support the host communities as they develop strategies to become learning organisations. This paper will discuss how the BHLN has begun to work towards these aims and the challenges it faces.

Community of Practice

The term Communities of Practice (CoP) is applied to the social organisation of the workplace. Whilst not in common usage, the term refers to much of the work done especially within the context of workteams (The Distance Consulting Company 2000). By enabling learning communities to proliferate, the host organisation officially recognises

> the importance of - and strengthening - the informal networks that are at work, the quality of interpersonal relationships, the sharing that goes on automatically and naturally in a healthy community of people who are doing related work. (Johnson 1999)

The aim to create a CoP reflects a philosophy of democratic involvement in workplace activity to achieve negotiated outcomes. In order to do this the CoP requires a 'requisite variety', where a self-organising team has the capacity to absorb multiple functions to enable them to become more effective in dealing with their environment. As a result, the team is empowered to find innovations around their issues that also resonate with their needs (Morgan 1997). Organisations support their CoPs that staff work within. To do so is strategic. CoPs are where best practices and innovations first emerge and where the solutions to shared problems are first identified (Nichols 2000).

According to Nichols (2000) there are two indicators of a CoP. Firstly, that there is a strong sense of identity tied to the community. To work within a CoP means that the members have ongoing business to achieve 'work', and have an understanding of where the work fits within their organisation(s). Secondly, the practice itself is not fully captured in formal procedure. People interact to complete work and also engage in dialogue that clarifies, defines and even modifies or changes how the work is done. They learn how to do what they do and become seen as competent (or not) in the course of doing it with others.

To enable the BHLN to begin as a collaborative venture and to develop into a CoP, it was necessary to engage in a range of activities. In particular, the partner facilitators BHLN were asked to share information about themselves and their host organisations and to clarify for themselves what the Network should become. To do this, each facilitator was asked to complete a SWOT analysis that considered what skills and other resources they and their host organisation brought to the BHLN. When the aggregated responses were discussed at the first BHLN facilitator's meeting, it was noted that the strengths and opportunities exceeded perceived weaknesses, and that threats were virtually non-existent.

At the same first meeting, facilitators were asked to bring along an object that they felt best represented what they thought the BHLN could or should be. Whilst the objects were quite different – a coffee cup, a bracelet, a potted plant - what they represented was remarkably similar; an organic and nurturing partnership. The purpose of this activity was to look at how the BHLN needed to organise itself to undertake its work, and how the partners saw their involvement and contribution. The BHLN meets on a regular basis, and there is considerable communication between facilitators outside of meeting times. Hosting and minute taking of the facilitator meeting is shared. Visiting other partners' sites has assisted in all gaining clearer understandings of the constraints and idiosyncratic nature of each site. Decision making is done in a collaborative manner and no one partner has any more say on the Network's activities than another. The production of the *BHLNews* is a joint venture, and every facilitator has responsibility for making at least one contribution per year and contributing to the distribution list for the newsletter. Facilitators also keep a diary where they take time to reflect upon the work of the BHLN and their contributions to it. The BHLN has been funded as an action research project.

The BHLN provides a social context for the work of the facilitators. Despite not sharing a common workspace, the facilitators do engage in a shared context for their work. The creation of the BHLN and the need to create an online learning facility and support is work in common, irrelevant of the varied work locations. There is a mutual engagement in the work in that there are the same needs to establish space, identity and acceptance in their host organisations for online training. At meetings the facilitators are able to explore how outcomes can be achieved in other locations and to discuss applicability at their location. The very nature of the BHLN being different to their 'other' work means that the facilitators interrelate with each other to discuss the use of shared resources, using common language and thereby creating a new and unique identity for themselves.

Work-based training online

In setting up the BHLN, the first 2-3 months has been focused primarily on establishing the Network and creating viable relationships between the facilitators and the host organisations they represent. More recently however, the Network's attention has been drawn to the provision of online learning – the principal reason for its funding through PETE.

The premise of the funding application for this research project was the opportunity to 'meld formal online learning using the TAFE Virtual Campus with workplace action learning' (Application Document 2000, p 8). Access to and use of the TAFE VC is still at the early stages in the BHLN. At present the BHLN is identifying and accessing modules/units and assessing them for their suitability for the work of the Network. The aim is to provide training for Community Services (Aged Care) online, however other suggestions for courses or stand alone units are increasingly presenting themselves. This is inevitable as the facilitators become more familiar and confident with the use of the TAFE VC and online learning and as (potential) students seek more options.

At present the BHLN is completing surveys designed to elicit any student concerns and their interests in/for online learning. Due to the needs of the current and potential students, the Network is cognisant of the need to have a student friendly online environment. The Network aims to achieve this by having access to computers in a pleasant environment; to give students plenty of opportunity to explore the web and online learning in an interesting, non-threatening manner; and to have queries responded to in a timely manner.

Work has also been undertaken in creating a communication hub on the TAFE VC platform that is able to meet the students' needs. The hub is the linchpin of communication and activity for the Network. It is through the hub that Facilitators communicate, students access units/modules, submit assessments, converse and debate with other students, and where tutors make regular contact with students.

Learning organisations

Morgan (1997) discusses organisations, and the way in which work is structured and managed, using a number of metaphors. In one metaphor - organisations as brains - Morgan draws on G W Taylor's (1979) work to ask: is it 'possible to design "learning organisations" that have the capacity to be as flexible, resilient, and inventive as the functioning of the brain?'(p 74). To achieve this Morgan uses imagery about the brain to describe organisations, and he proposes that to become a learning organisation it must be able to undertake four activities. These activities or competencies are to varying degrees becoming recognisable within the activities and work of the BHLN.

i) To scan and anticipate change in the environment

Environmental change is the norm: organisations need to develop new ways of seeing their environment and be able to envisage and create new possibilities.

All of the host organisations recognise the changing nature of work and their commitment to the well being of their staff. Whilst all are not viewing this in the same way or to the same degree, there is an understanding of the importance of investing in staff. The benefits in investing in staff could be perceived as increasing their skills and knowledge, allowing staff to try new and varied work opportunities, enabling career advancement within the organisation rather than to outside organisations, and conveying to staff that they are valued. To get to this situation, the host organisations have come to recognise that they have to support staff in new ways, and in doing so, create different workplaces.

ii) To develop an ability to question, challenge, and change operational norms and assumptions.

This involves becoming skilled in understanding the paradigms, metaphors, mindsets or mental models that underpin how the organisations operate. To do this requires self-reflective practice, the ability to develop a new mental model when required and to create new capabilities to extend their ability to create the future.

Within the Network it is possible for the facilitators to step outside the mind set of their host organisations. By considering the possibilities as well as how to deliver, monitor and assess the training, facilitators have to be aware of both the opportunities and limitations within their organisations. Involvement in the Network enables them to analyse and reflect upon typical practice and to consider how that practice may constrain. Facilitators become skilled in reflective practice within the safe environs of the Network, where there is an expectation to trial, explore and consider options. In many ways the Network is a 'playground' for experimentation and practise before trialling an innovation in the workplace.

iii) To allow appropriate strategic directions and patterns of organisations to emerge

The behaviour of intelligent systems requires a sense of vision, norms, values, limits or reference points to guide behaviour. However, it is also important that these reference points also create spaces which enable multiple actions and behaviours, including those which question imposed limits!

The early focus of activities for the BHLN has been to create a Community of Practice. For the Facilitators there has been considerable opportunity for them to have a say in the way in which they want and need the Network to look and operate. The earliest activities were about identifying the shared vision and articulating the values that would guide the daily operations of the Network. It was very clear at the outset that each host site would be able to respond according to its needs and imperatives. The host organisations did not all enter into the Network at the very same point of development. Consequently, there has been considerable effort to endure that Facilitators representing the host organisations are able to have their 'voice' heard whilst taking part in a choir of shared Network activity.

iv) To become skilled in the art of double-loop learning

This requires self-reflective action to underpin intelligent action. To do this is to examine the status quo, to consider alternative or new modes of operation and to understand from a new perspective.

The Facilitators have been completing and maintaining personal diaries about their involvement and the activities of the BHLN. By reviewing Facilitators' selected thoughts and reactions of key events and episodes in the early life of the Network, it will be possible to enable reflective evaluation at several levels. Clearly individuals are the first level, but there is also opportunity to enable reflection across the Network. By using action research in such a way, the Network is not consigned to repeat; rather, it is able to learn from previous experiences, and to see them differently.

The ability of the BHLN to demonstrate these four competencies relies on several underpinning platforms. The BHLN is not a totally separate entity from the Host organisations, and as such there is considerable need for a close relationship and organisational support to enable the Network to function firstly, and secondly, to achieve its aims.

Ongoing challenges

At present the BHLN is identifying the units/modules that can actually be delivered online. This is problematic in that our initial focus has been to deliver Community Services (Aged Care), and at present there are insufficient options for online delivery. This leaves the Network with two options – to customise current offerings to make them more relevant to aged care workers or to actually produce the materials in html format - an option that the Network has not (yet) been funded for.

Having created online learning options, the importance of establishing a user friendly gateway to the BHLN for our staff and students is becoming primary. Some of the potential students have little or no experience with computers and use of the web. Others have languages other than English as their first language. The Network is determined that getting online and access to the BHLN be as simple as possible. The creation of a virtual campus is still at a relatively early stage of development. The current facilitators in the BHLN have skills in the use of computers - eg word processing and communication - but their experience with online learning is relatively 'new'. Additionally, most have no formal training as teachers. To address both of these issues, the BHLN is supporting and upskilling the facilitators to be able to 'deliver online', through their completion of Certificate IV Workplace Assessor and Training online.

Establishing BHLN as a source of workplace training, especially with the host organisations, is an interesting challenge. Some of the host organisations are large and can employ over 200 people across a diverse range of work. The need to market and promote the activities of the BHLN to its host organisations, particularly as a preferred option for 'in house' training, will be a large task. However, the very viability and sustainability of the Network is largely predicated upon the achievement of this feat.

Conclusion

The BHLN is still in the very early stages of its development. There are a number of challenges it faces in becoming a Community of Practice and supporting the development of the host organisations to become learning organisations. To achieve this it will be necessary for the Network to becoming a recognised provider of training within its host organisations, creating a viable online presence and enabling professional relationships within a nurturing environment.

To date, the establishment of the BHLN has been one of the positive experiences for the facilitators involved. There has been an imperative to create a Community of Practice before the Network could begin to promote itself in other arenas. The attainment of this goal at such an early stage is significant. The Network is only just beginning to consider ways in which it can demonstrate to the philosophy and practice of the host organisation's learning organisation. The ability of the Facilitators to meet and surpass this and other inevitable challenges, is an aspect that is emerging for our Community of Practice as a significant priority. To be willing to rise to such challenges allows the Network to ponder its potential to become a viable and sustainable entity.

References

Box Hill Learning Network Application Document (2000) Box Hill Institute of TAFE.

Distance Consulting Company (2000) Community of practice: what it's like inside. http://home.att.net/-discon/KM/CoPCharacteristics.htm.

Johnson L (1999) Integrating organizational learning and knowledge management: from an interview with Peter Senge. Leverage, vol 34, October.

Morgan G (1997) Images of organisation (second edition). California: Sage Publications, Thousand Oaks.

Nichols F (2000) Communities of practice: definitions, indicators and identifying characteristics. http://home.att.net/-discon/KM/CoPCharacteristics.htm.

Taylor G R (1979) Natural history of the mind. New York: Dutton.

Contact details

Kerry Renwick
Food Safety Auditing
Centre for Hospitality and Tourism Studies
Box Hill Institute of TAFE
PO Bag 2014 Box Hill
Victoria 3128
Ph: +61 3 9286 9543
Fax: +61 3 9286 9333

Email: k.renwick@bhtafe.edu.au

The world of work of a TAFE institute manager

Ann Rice

Western Sydney Institute of TAFE, New South Wales

Educational change is occurring in Technical and Further Education (TAFE) at a level not experienced in the past. Requirements for an educational system that is flexible and responsive to change have necessitated changes in both the culture and the structure of the organisation. Change, though, does not occur unless it has the support and commitment of management. In TAFE New South Wales (NSW) the responsibility and accountability for change rests largely on managers at the college and faculty level. These managers must drive change if it is to be successful.

This paper looks at the results of a study (currently under review) designed to explore how institute managers are managing within their new environment. The reflections of a number of institute managers in one institute of TAFE in NSW were examined using content analysis, with the aim of better understanding the experiences of people in these positions within TAFE.

In a paper presented at the AVETRA conference last year (Rice 2000a), the economic imperatives driving change in the vocational education and training (VET) sector were discussed along with the argument that TAFE has not been particularly responsive to the needs of this new training system. In fact Anderson contends (1998, p 22) that TAFE 'is now in a profound state of disarray and instability … TAFE is fighting for its survival' in trying to reconcile its diverse roles – roles that range from satisfying the needs of business and industry to TAFE's traditional role of responding to wider community needs.

I have argued elsewhere (Rice 2000b, p 68) that TAFE's ability to respond to the challenges of the new training system depend largely upon the people within the organisation, particularly those in senior managerial positions. Educational theorists agree that these people should be transformational leaders (Burford 1996; Duignan and Macpherson 1992; Hallinger 1992; Ozga 1993; Sergiovanni 1990) who encourage collaborative decision-making, have a participative management style, possess people skills, act as role models for others, interact individually and face-to-face with their followers, are regularly seen at the workplace and consistently reinforce their visions of the future (Parry 1996; Smith and Hutchinson 1995).

How, then, are TAFE executives reacting to changes in the ways vocational education and training is managed? Have investigations into how to develop TAFE institutes and staff (Moran 1998, p 181) occurred at the management level?

A review of the literature would suggest not.

BEST COPY AVAILABLE

The literature

A review of seven years of vocational education research by John Stevenson (2000) uncovers no research specifically directed at TAFE managers and how they are adjusting to this era of change. An American study by Finch et al (1991) into the leadership behaviours of successful vocational education administrators determined that 'they are faced with complex and difficult challenges and apply their skills, knowledge and experience to deal with them', but 'although there are a number of vocational education administrators across the United States who are quite successful, a certain segment of the administrator population may be only marginally qualified or less than adequately prepared for their current jobs' (1991, p 31).

The theme of professional development for vocational education practitioners has been developed by a number of researchers, including Simons and Harris, who recognise the significance of professional development in helping staff in vocational education and training 'cope with the increasing complexity, ambiguity and uncertainty of their working world' (1998, p 155). Mageean's study of the continuing education needs of academic and senior college staff in TAFE concluded that, while all staff will continually face new situations and will need to be prepared for them, 'staff development for senior staff was often overlooked or needed to be too specialised to fit into the usual TAFE staff development programs' (1987, p 27).

Lundberg, in his work on the impact of the training reform agenda on TAFE managers, recognised that these managers 'have a key role in the success or failure of the management of change [but] arguably, their voices have not been permitted to influence the change process sufficiently to date' (1996, p 6). In Lundberg's study, two of the major issues the managers felt impacted on their managerial responsibilities were management of the change itself and staff development.

In the United States a research study of 69 vocational administrators in 12 states revealed the importance of on-the-job experiences for the leadership development of administrators (Hopkins et al 1998). Their contention was that 'the need for high quality leadership in vocational education is certainly as critical today as it has ever been. (In fact) some would argue that with the major education reform currently underway, quality leadership is even more important that at any time in the past' (1998, p 52).

While there has been a growing amount of research into school educators and administrators, Dinham et al (2000, p 3) argue that 'the 'middle manager' level in schools has received far less attention'. The crucial role played by middle managers, though, in operationalising educational change was identified in this study along with the problems associated with the demands the position makes on these leaders. The work by Dinham et al (2000) concluded that (in relation to school Heads of Department):

- there was a need for ways to identify and nurture potential leaders;
- working with others was the most enjoyable aspect of the educational administrator's day;
- the lack of time available compromised the ability to complete core business requirements;
- there was a need to reduce aspects of administration;

- the managers require formal preparation for their role as well as individually tailored and packaged professional development programs grounded in an experiential problem solving framework; and
- there was a need to determine where the next generation of leaders would come from, given that many Heads of Department do not aspire to promotions positions.

There is an obvious lack of relevant literature on the role TAFE managers are playing in the move to a more flexible, responsive and competitive vocational education and training system, although it is refreshing to see that the National Centre for Vocational Education Research (NCVER) has, amongst its current research priorities, an examination of management and leadership in VET. The research being reported by Ian Falk at this AVETRA conference will also assist in addressing this gap in the research.

Project aim

The lack of research into how TAFE is being managed and how TAFE managers are coping within their new environment thus prompted this study, along with a need to understand the 'world of work' of TAFE institute managers (IMs). It was decided to concentrate, for the purposes of this study, on those IMs within TAFE who supervise, either directly or indirectly, teaching staff.

The research design, following that devised by Dinham et al (2000), was guided by the following questions:

1. Why do IMs aspire to the position?
2. How well are IMs prepared for the role?
3. What are the elements of IMs' workloads?
4. What do IMs like most and least about their work?
5. How would IMs prefer to allocate their time and effort?
6. How do IMs develop their leadership style?
7. How do IMs contribute to college and institute decision-making?
8. What are the professional development needs of IMs and how are these being addressed?
9. What are the future aspirations of IMs?

Method

The purpose of this study was to examine the world of work of the TAFE IM by gathering information from these managers in relation to how they perceived their work, development and future in the TAFE system.

The qualitative paradigm was considered appropriate for the study because it allowed an interpretation of the world of work according to the views and experiences of the IMs (Merriam 1988). Within this paradigm, elements of Strauss and Corbin's grounded theory approach were used to analyse and categorise data (1990).

Nine of the thirteen IMs approached volunteered to be interviewed. They represented five different colleges and one institute office, and a response rate of

BEST COPY AVAILABLE

64%. Of these nine managers, five were female and four were male. These participants were interviewed using an interview schedule devised by Dinham et al (2000) that had been modified to suit the TAFE environment. This interview schedule contained both demographic and open-ended questions designed to obtain the perceptions of the people being interviewed. Interviews were conducted over the phone, usually in the evening. Notes, including direct quotations, were recorded on individual interview schedules.

Data analysis resulted in a number of categories being developed from a process of open coding (Strauss and Corbin 1990) and followed closely the questions on the interview schedule.

Summary of research findings

The results of the study have been reduced to point form for the purposes of this paper. For interest, one quote from a participant has been added to each section of the results.

Becoming an institute manager

The main reasons given for becoming an IM were:

- the challenge of the role (5 IMs from 9)
- ambition and personal growth (5)
- to influence change and policy (5)

'I wanted to make a difference to myself and the strategic direction of the college'

Major influences on seeking to be an institute manager

- other IMs or senior staff (6)
- negative role models (3)
- previous acting opportunities in the position (3)

'I had a college director who encouraged and supported and developed (my) confidence'

Preparation for the role of institute manager

When asked if they felt prepared for their first role as an IM the responses were:

- prepared (4)
- unprepared or only partly prepared (5)

'I didn't receive any kind of formal preparation'

The preparation the IMs received for their role basically fell into:

- self initiated preparation (6)
- learned on the job (4)
- internal staff developments (4)

'Privately I prepared myself very well'

Matching expectations

- did not match expectations (4)
- expectations met (3)
- changes in role meant that expectations no longer met (2)

'I'm not sure I had an expectation. I hoped to be able to make a positive difference in the role. Sometimes I feel I do, often not because of the structural impediments'

The best aspects of being an institute manager

- being in current position and working with associated staff (5)
- ability to influence outputs and change (4)
- flexibility and variety in job (2)

'I feel that I can make some things happen'

The worst aspects of being an institute manager

- lack of power in decision-making process (4)
- insecurity, uncertainty and lack of consistency in TAFE (4)
- frustrations of the job (4)
- lack of time to do the job (3)

'In some ways the frustrating thing – the battle – with all jobs is that you've never got total autonomy'

Elements of workload of the institute manager

- meetings (9)
- communications, especially emails (7)
- dealing with teaching sections (4)
- strategic work (4)
- educational development (3)

'I get 20 to 30 e-mails a day plus paperwork through the mail and there's the telephone voicemail'

Preferred workload of the institute manager – redesigning the role

When asked how they would prefer to spend their day the responses included:

- more time spent working with teaching sections (4)
- time to build the core business (4)
- more time on strategic issues (3)

'We carry a constant load of problems you know are never going to go away... I would like more closure on more of the things I deal with'

Personal leadership style

Participants described their own leadership style as:

- participative or consultative (5)
- situational (4)

'I respect (the staff) because they're good people. They have the ability. I offer advice and direction. There is mutual respect'

Influences on and development of leadership style

- IMs previously worked with (5)
- positive role models (3)
- negative role models (3)

'There were things about his style I had problems with but he was a thoroughly decent human being as well as a manager. This (was) more important than management triumphs'

Current involvement in decision-making, leadership and change

- total or considerable involvement in college decision-making (9)
- very involved in Institute decision-making (1)

'I don't personally have the influence. I'm not seen as a major decision-maker'

Preferred involvement in decision-making, leadership and change

- more involvement wanted in Institute decision-making (9)

'I'm frustrated that (changes) take so long. Decisions have to go through this process. They talk about it but nothing ever changes'

Professional development needs

- leadership and management issues (5)
- developments and directions in TAFE/vocational education and training (3)
- finance training (3)

'There's not an area where I don't need development'

How the professional development needs are being met

- needs not being met (5)
- uncertain if needs are being met (2)
- needs being met through self-initiated, informal, on-the-job training (2)

'No, they are not being met. Staff development is inappropriate and out of date'

Perceived future in education

- remain in current role (6) (of these, 5 see it as their preferred future)
- leave TAFE (2) (not their preferred future)

- college director's position preferred (1)

'I view the future bleakly. (TAFE) will be pared down. I'm quite disenchanted at the moment'

Recommendations

The aim of this study was to present the thoughts of a group of IMs in TAFE. It was not to generalise to another time or place. There is no claim that the IMs interviewed for this study are representative of IMs or middle managers in TAFE specifically or vocational education and training generally.

On becoming an institute manager

Career development for the IMs should be considered and planned for. The abilities of the IMs should be identified, their preferences determined and training and development experiences provided that will align the skills of the IMs with the future needs of the organisation. It is also important that aspiring IMs are considered in this career planning, with opportunities for them to be developed into future, vacant IM positions.

Preparation for the role

Along with the need for career planning and development there also appears to be a need for experience in the IM position for aspiring IMs. This could be provided by rotating different people through acting experiences in the various positions, or could take the form of passing information on through a mentoring program married with formal development programs.

Performing the role

To successfully lead change in TAFE, managers must consolidate their relationships with Head Teachers and other staff in teaching sections while exploring avenues for growth and innovation in educational leadership. Having the time to satisfy these requirements of their positions is of paramount importance. Of equal importance is the necessity for the IMs to have the authority, influence and power to make and take decisions that will allow them to fulfil their job responsibilities. Some of the operational tasks of the IMs must be removed and a more efficient way of dealing with the enormous number of emails received each day needs to be devised.

Leadership style

The importance of role models cannot be overlooked when analysing the development of IMs' leadership styles. Formalising the process of mentoring within the organisation could take advantage of the influence of positive role models. It would also assist in the development of IMs and aspiring IMs, as identified earlier in this paper.

Involvement in decision making, leadership and change

Involving the IMs in more of the higher level decision-making, especially that relating to change, would not only motivate the IMs but would improve the change process through utilisation of their innovative ideas.

BEST COPY AVAILABLE

Professional development

A formal mechanism should be in place to enable all IMs to learn from the experiences of others. This form of professional development does not obviate the necessity for training and development experiences that align with the need for information on future directions and innovations in TAFE. Professional development on an ongoing basis should also promote an understanding of the way change is managed constructively, particularly within the context of vocational education and training. Professional development should be tied to both the needs of the organisation and the needs of individuals within the organisation. An individual needs analysis should be conducted with each IM to determine their deficiencies in terms of competencies required by the organisation (both for their current positions and for positions they may hold in the future). This procedure should be aligned with the career planning previously discussed.

The future of institute managers

The importance of the role of the IM in the current change process must be emphasised. They must be developed and supported in this role if they are to make a positive contribution to the future of TAFE. Future IMs must also be identified, supported and developed so that they can move into the role of IM with better preparation than those who currently occupy the position.

Conclusion

As mentioned in the abstract, this paper is a summary of the findings of a study into how TAFE IMs are managing within the changing environment of vocational education and training. It is obviously assumed that managers in TAFE are driving the changes needed within this new environment, but this study indicates that, in fact, they are not well prepared for their roles and are not receiving the professional development needed for them to lead the changes. There appears to be a need for TAFE IMs to be better prepared for their positions and for the higher level duties they are expected to perform in these positions.

References

Anderson D (1998) Training markets. In C Robinson and P Thompson (eds) Readings in Australian vocational education and training research. Adelaide: National Centre for Vocational Education Research.

Burford C (1996) Beyond tomorrow - the things that matter. Keynote address at Leadership and learning - the Deputy Principals and Leading Teachers State Conference.

Dinham S, Brennan K, Collier J, Deece A and Mulford D (2000) The world of work of the secondary head of department. Australian College of Education International Conference.

Duignan P A and Macpherson R J S (eds) (1992) Educative leadership. London: Falmer Press.

Finch C R, Gregson J A and Faulkner.S L (1991). Leadership behaviours of successful vocational education administrators. Journal of Vocational Education Research, vol 16, no 1, pp 1-35.

Hallinger P (1992) The evolving role of American principals: from managerial to instructional to transformational leaders. Journal of Educational Administration, vol 30, no 3, pp 35-48.

Hopkins C R, Lambrecht J J, Moss Jr J and Finch C R (1998) On-the-job experiences of vocational administrators that develop administrative capabilities. Journal of Vocational Education Research, vol 23, no 1, pp 35-54.

Lundberg D (1996) Steering through rapids: the impact of the training reform agenda on TAFE managers. Adelaide: National Centre for Vocational Education Research.

Mageean P (1987) The professional development of the TAFE teacher. Australian Journal of TAFE Research and Development, vol 3, no 1, pp 23-30.

Merriam S B (1988) Case study research in education: a qualitative approach. San Francisco: Jossey Bass.

Moran T (1998) Competitiveness is the key. In C Robinson and R Kenyon (eds) The market for vocational education and training. Adelaide: National Centre for Vocational Education Research.

Ozga J (1993) Women in educational management. Buckingham: Open University Press.

Parry K (1996) Transformational leadership. Melbourne: Pitman Publishing.

Rice A (2000a) The leadership of change - a TAFE study. In Future research, research futures. Alexandria: AVETRA.

Rice A (2000b) Management styles: a case study of women in TAFE. Australian and New Zealand Journal of Vocational Education Research, vol 8, no 2, pp 67-90.

Sergiovanni T J (1990) Value-added leadership. San Diego: Harcourt Brace Jovanovich.

Simmons M and Harris R (1998) Professional development in VET: how significant is it in today's policy context? In J McIntyre and M Barrett (eds) VET research: influencing policy and practice. Alexandria: AVETRA.

Smith C and Hutchinson J (1995) Gender: a strategic management issue. Sydney: Business and Professional Publishing.

Stevenson J (2000) Seven years of vocational education research: a review of material published in the Australian and New Zealand Journal of Vocational Education Research. Australian and New Zealand Journal of Vocational Education Research, vol 8, no 1, pp 93-133.

BEST COPY AVAILABLE

Strauss A and Corbin J (1990) Basics of qualitative research. California: Sage.

Contact details

Ann Rice
Email: annrice@acay.com.au

Misfit and match: the frontline management initiative in the community services and health industry

Ian Roos

Centre for Human Resource Development and Training, University of Melbourne

Chris Selby Smith

Centre for the Economics of Education and Training, Monash University

Liz Wright

Community Services and Health Industry Training Board, Melbourne

This paper reports on a project involving a critical investigation of the application of frontline management training in the community services and health industry in Victoria[1]. It seeks to investigate, given the findings of the Industry Task Force on Management and Leadership (Karpin Report 1995):

- the appropriateness of the Frontline Management Initiative (FMI) to the community services and health (CS&H) industry;
- how widely the FMI has been taken up in the CS&H industry in Victoria;
- which providers and users are involved; and
- how management training for frontline managers in the CS&H industry can be improved.

This paper focuses on user and provider perspectives, as revealed in interviews with managers of both user and provider organisations. Although the research is confined to the community services and health industry in Victoria, the implications of the research extend beyond Victoria and the specific industry.

Central to the investigation are the concepts of 'match' and 'fit'. Match is used in the sense of how well things line up, for example, in comparing lists of characteristics, or comparing colours. In this context it is how well what a provider offers in an FMI program meets the needs of the CS&H industry or an individual user. Fit, on the other hand, is used in the strategic sense of an alliance between provider and user to achieve the purposes and objectives of the user organisation. The analogy of mapping can be used. Match, in this instance, becomes the mapping of the FMI to the terrain of the CS&H industry. Fit is the intimate knowledge of that terrain, as applied in using the FMI to achieve a strategic purpose for the user organisation.
There are five purposes of the overall research study:

- First, what is the relationship between the FMI and the findings of the Karpin Report? How do the FMI and the Karpin recommendations relate to management theory in this area, particularly with regard to the special features of the CS&H industry?

- Secondly, there is the question of the contextualisation of frontline management training. How much does it needs to be contextualised and how does this affect its value as a generic qualification? This is a strategic issue, which is important in all industries, not only in the CS&H industry.
- Thirdly, how has the FMI developed in the CS&H industry and against what background of existing training for frontline managers?
- Fourthly, how widely has frontline management training been taken up in the CS&H industry, where and how? Which providers are involved (eg public or private providers; providers in the city, other large centres or in more remote locations) and which users (eg large or small organisations; health or community services; public, private sector or religious and charitable organisations; metropolitan, rural or remote locations)? Also, why are other providers not offering FMI and other users not accessing the FMI initiatives?
- Finally, how can the skills, performance and productivity of frontline managers be improved overall, in specific workplaces and for specific client groups?

Not all of the above are dealt with at this stage of the project. However, the interviews reported here raise issues that will direct further research aimed at achieving these purposes.

Background to the study

Karpin Report

The Industry Task Force on Leadership and Management Skills, chaired by David Karpin, reported to the Federal Government in February 1995. Its report, *Enterprising nation* (Karpin Report 1995) argued that improvement in the performance of Australia's managers is critical to reform of the Australian economy. The 28 Task Force recommendations were wide ranging (Karpin Report 1995, Appendix I, pp 361-383), but they included the increasing significance of lifelong learning and the need to strive continually to achieve best practice in enterprises and education institutions.

Recommendation 11 in the Karpin Report was that 'there be established a national training program for frontline managers' (p xli). The Karpin Report envisaged that participants would not have had any formal management training and that they would be 'working in enterprises which are able to demonstrate the application of quality principles in their operations and their human resource development processes'. The target was to provide access to management training for 80,000 frontline managers over five years. It was envisaged that participants would be released, at the employer's cost, for up to twenty days of structured training, which would be spread over a period of twenty to forty weeks. There would be approximately ten units involved in the course. TAFE was expected to be a major deliverer of the FMI program and TAFE's capacity to deliver management development courses should be upgraded. The role of TAFE was to be supplemented by industry associations and private providers. The Commonwealth under the user choice principles would fund the training. The Committee recommended that the course materials be competency based and that delivery be through a variety of mechanisms, preferably on site, but also through distance learning with appropriate course materials developed. The training course, termed the 'National Certificate in Workplace Leadership', was to be integrated into the national qualifications framework in order to ensure articulation with other programs. The Task Force envisaged that there would be provision for the deliverer to customise their program to meet enterprise requirements and to undertake assessments of competence. It is also clear that the Task Force was considering those people who had completed compulsory education, then gained a vocational qualification and were technically proficient. They estimated that there were 180,000 such people in Australia in supervisory positions with no formal management qualifications.

Flowing from the Karpin Report, print-based learning materials were prepared to support FMI delivery in Australia (Australian National Training Authority 1998a). These learning materials include 11 Learning Guides for the Certificate and the Diploma of Frontline Management (Australian National Training Authority 1998b). Some VET providers have delivered the courses and some enterprises have participated. The first critical Australian study by Barratt-Pugh et al was funded in 1999 by the Australian National Training Authority through the National Research and Evaluation Committee. A preliminary report was presented at the AVETRA Conference in Canberra in March 2000 (Barratt-Pugh 2000). These researchers have stated that their study does not include the CS&H industry. Also, their study is national in scope, whereas the present study is confined to Victoria.

The CS&H industry

Every industry has its own characteristic features, which are relevant for the training of frontline managers there; and the CS&H industry is no exception.

- The CS&H industry represents 10.4% of Gross Domestic Product (Australian Institute of Health and Welfare 1999a, 1999b), so that it is larger than agriculture and mining put together.

- It is a diverse industry, including hospitals (38.4% of total health expenditure), medical services (19.3%), pharmaceuticals (12.1%), nursing homes (7.5%), dental services (5.9%), community and public health (4.8%), aids and appliances (1.9%), ambulance services (1.5%) and research (1.5%) (Australian Institute of Health and Welfare 2000). A variety of challenges face frontline managers in these different sectors of the industry.

- The CS&H industry is of concern to both the public and the private sector. 70% of total health expenditure in 1998-1999 was derived from the government sector (Australian Institute of Health and Welfare 2000). The non-government proportion is higher in Victoria than in Australia as a whole. In some sectors of the CS&H industry the public and private sectors are separate (such as community health compared to adult dental services), but

BEST COPY AVAILABLE

in other sectors of the industry there is strong competition, for example, between public and private hospitals. In 1997-1998 public hospitals represented 30.1% of total recurrent health expenditure nationally compared to 8.3% for private hospitals, but the former had fallen from 34.3% in 1989-1990 (Australian Institute of Health and Welfare 2000). While the challenges facing frontline managers are often similar in the public and private sectors, there can also be significant differences, for example in objectives, processes and accountability.

- The CS&H industry is a contested area between the different levels of government. The industry is of concern to all three levels of government in Australia, although the financial dominance of the Commonwealth Government has been increasing. For example, the Commonwealth share of total health services expenditure in Australia rose from 42.2% in 1989-1990 to 47.1% in 1998-1999, whereas the State and local government share fell from 26.1% to 22.9%. Management expectations and approaches can differ between the three levels of government.

- It is an industry where labour is the critical input, representing some two-thirds to three-quarters of total health expenditure. Labour costs are much larger than all other inputs put together, even without taking into account the substantial amount of contributed service (eg by religious orders) and volunteer activity. Labour is also critical for the processes of care and for the relationships between the providers and users of healthcare. There is a large variety of different staff in the CS&H industry, many of whom are highly trained and experienced, and most of whom produce healthcare services in combination with other labour inputs rather than individually. This complicates the challenges facing managers in the industry.

- The characteristics of labour in the CS&H industry are different from other industries, such as manufacturing. The great majority of staff are female; disciplinary perspectives are strong and varied; many staff work part-time and have other important responsibilities. Compared to many other industries there is: a high proportion of operatives holding formal educational qualifications, often at degree level or above; a tradition of continuing education and training, often with an expectation that it will lead to a formal qualification; and a familiarity with articulation.

Can generic approaches, such as the FMI, meet the specific needs and opportunities of frontline managers in individual industries? And to what extent do they need to be specifically tailored for the CS&H industry (or parts of it)?

Literature review

There is a wide range of literature relevant to FMI in the CS&H industry:

- The management literature, particularly that pertaining to the nature of the management function, and the roles of managers and management theory, particularly that on first-line management.

- The education literature, particularly that relevant to adult learning, instructional theory, training, evaluation and assessment.

- The literature regarding management competencies.

- Relevant literature about the CS&H industry - its structures, culture and operations.

- The literature specific to management of health professionals.

Within this broad range of relevant literature there are subsets, such as management education, education issues for health professionals, and management issues for the health sector and the economics of both health and education, each with their own specific literature.

It is not feasible to review the full content of this literature here, but aspects of each are relevant. In addition there are various reports which have led to FMI-type programs, including the Handy Report (1987) and the Constable and McCormick Report (1987) in the UK, the Karpin Report (1995) in Australia, and the material generated by them.

The Karpin Report recommended the development of the FMI, although it was only one of 28 recommendations in the Report. The Karpin Report focused on the role of management in Australia becoming a more competitive player in the global economy. Much more was said about senior management than frontline management. The report was substantially based on the results of 27 research projects, which have been hotly debated. However, 'If we accept the results of the research that led Karpin to his assessment, then these skills obviously need to be developed' (Ellerington 1998, p 177).

The Karpin Report and the Frontline Management Initiative Competencies

The Karpin Report (1995, p 687), listed ten competencies as being essential for frontline managers, as seen by senior managers. These competencies were selected from a larger list developed by Collins and Saul who undertook research into the matter for the Karpin Committee. These ten competencies are listed in Table 1, together with the eleven competencies of the FMI, as set out in the eleven learning guides published by Prentice Hall for the Australian National Training Authority. It can be questioned whether the FMI learning guides and their contents bear any particularly close relationship to the original Karpin suggestions. The implementation is certainly different in that the specific recommendation from Karpin (p 371) was for a National Certificate in Workplace Leadership, consisting of 'up to 20 days structured training spread over a 20 to 40 week period', with participants to be released at cost to the employer.

Table 1: The ten Karpin Competencies and the eleven FMI Competencies

Karpin Competencies	FMI Competencies
Knowledge of job and its context (technical specialist competencies)	Manage personal work priorities and professional development
Problem and opportunity definition (anticipation and planning)	Provide leadership in the workplace
Problem solving and decision-making	Establish and manage effective workplace relationships
Situational insight	Participate in, lead and facilitate work teams
Communication (what and how)	Manage operations to achieve planned outcomes
Influence (ability to influence peers, superiors and subordinates)	Manage workplace information
Team management	Manage quality customer service
Self-insight (understanding own strengths and weaknesses)	Develop and maintain a safe workplace environment
Drive (energy and initiative, persistence)	Implement and monitor continuous improvement systems process
Adaptability (adapts behaviour) to situation	Facilitate and capitalise on change and innovation
	Contribute to the development of a workplace learning environment

Source: Karpin Report (1995, p 687) and Prentice Hall, FMI Learning Guides (Australian National Training Authority 1998b).

Management competencies

The concept of management competencies and what they consist of has been the subject of much debate, and this debate continues. (For example, see Currie and Darby 1995; Dunphy et al 1997; Jubb and Robotham 1997; McFarlane and Lomas 1994; Mclagan 1992; Robotham and Jubb 1996). However, there needs to be some consideration of the functions of managers in determining what they need to be competent at. Thus, it is necessary to give some consideration to different schools of management thought.

The functionalist or classical school of thought, typified by the arrangement of most introductory management textbooks (for example Robbins et al 1999; Bartol et al 1999), classifies the functions of management as Planning, Leading, Organising and Controlling. This functionalist perspective is distilled from such writers as Fayol (1916), Gulick (1937), Barnard (1938) and Drucker (1954)[2]. Essentially the focus of these management theorists is on generic functions and principles of management applicable in any organisation in any situation.

The human relations school introduced the concept of the 'social' manager, placing a very high value on workers as individuals. This body of theory has had a major influence on subsequent understanding of the behaviour of people within organisations. It tends to have an optimistic set of assumptions and values. The most pervasive themes deal with: motivation; group behaviour; leadership, work teams and empowerment; the effects of a particular work environment; and organisational development (Ott 1996). A central assumption is the link between worker satisfaction and productivity (Stawb 1984), and that managers can learn to release the intellectual potential, creativity and productivity of workers (McGregor 1960).

Other writers such as Mintzberg (1980), Kotter, (1982a, 1982b) and Stewart (1982) developed contingency views of managerial work based on observations of managers at all levels in a variety of organisations in different countries. These writers concluded that the nature of the management task was essentially one of roles and work agendas.

The various theories of what constitutes management can be reduced to 'what' and 'how': that is, what is the manager's task and function?; and how do managers undertake job responsibilities (Shenhar and Renier 1996)? How the various bodies of theory relate to competence becomes definitional. For example, if competence is seen as a 'combination of knowledge, technical skills and performance management skills' (Dunphy et al 1997, p 236), this would support Carroll and Gillens' assertion that 'The classical functions provide clear and discrete methods of classifying the thousands of activities that managers carry out and the techniques they use in terms of the functions they perform for the achievement of organisational goals' (1987, p 48).

There is much debate as to what constitutes management competencies, whether they are measurable and what role they should have in management development. A number of studies have examined the role of competency-based approaches to management development. However, as Strebler (1995) indicates, there are many other variables that differentiate those using competency-based approaches from those that do not. For example, there are differences in the amount of money allocated to management development, the level of evaluation of training effectiveness, and the degree to which training is aligned with business needs. Competency-based trainers tended to be significantly higher on all of these measures.

The criticisms of competency-based approaches focus mainly in two areas: the definition of management competence (for example: Hayes et al 2000; Jubb and Robotham 1997; Kilcourse 1994; Maclagan 1992); and the assessment of competencies (for example: Loan-Clarke 1996; MacFarlane and Lomas 1994; Robotham and Jubb 1996). Other criticisms made by the same authors include the assumptions of generic management and the modularisation of management development based on competence approaches (Currie and Darby 1995). Their argument is that there is a significant contingency factor in management between different organisations, so that 'competences' have to be tailored to specific situations and being competent is greater than having gained a series of competences. There is also the danger that lists of competencies may simply be a reversion to trait theory, particularly if the Boyatzis (1982) definition of competence as a 'trait, skill, aspect of one's self image or social role, or a body of language which he or she uses', is adopted. It is interesting to note that the UK Management Charter Initiative (MCI), rather than discussing generic competencies that define the task of the manager, uses the term management roles and the personal competences that are needed to fulfil those roles (MCI 2000).

The term 'frontline manager' encompasses the first level of line management. It replaces terms such as 'supervisor' and 'foreman'. In Mahoney et al's (1965) analysis of the functions of managers by level, leading was a major function of first line managers, with organising the next most important, and planning and controlling taking less than 25% of the time allocation. However, with the delayering of organisations, decentralisation of authority and decision making, and implementation of such concepts as 'self-managing teams', or 'autonomous work groups', it is more difficult to conceptualise just what constitutes first line management. Jacques' (1990) extensive investigations over 35 years into the time span of decisional authority at various levels within the organisation suggest that there is a natural hierarchy within organisations, independent of the structural hierarchy (or lack of it). At the frontline management level, Jacques concluded that the responsibility time span is of the order of three months, which is the longest task or project that the individual frontline manager must consider. Clearly, many of those within the health and community services sector, such as unit managers, have responsibility time spans that are greater than this, which has implications for the application of the FMI to such positions.

There is a large literature on management development and this has recently been reviewed (Garavan et al 1999). These authors have also summarised the various approaches to management development and the advantages and disadvantages of each. Their article raises a fundamental issue regarding management development and the nature of management. As they indicate, whilst the action learning/reflection theorists such as Schön (1988) suggest that managers need to be educated to be reflective practitioners, learning by reflection rather than being taught, theorists from the contingency school indicate that successful managers are action-oriented and not reflective (Mintzberg 1980).

Applicability of FMI to the Health and Community Services Sector

Ellerington (1998), in her summary of the FMI, highlights a number of the themes that are potential issues for the CS&H industry. For example, she characterises the profile of the typical frontline manager as 'most probably a person who has left school at age 15', 'gained a vocational qualification and become technically proficient'. The FMI offers 'a national management qualification - and all he or she has to do is demonstrate workplace performance'. Her summary of the FMI also highlights some of its underlying assumptions, such as the irrelevance of 'off-the-job training' and that employers are capable of providing appropriate learning opportunities when gaps in skills are identified.

The literature on the FMI focuses on the relevance of the FMI to the organisation's strategy, emphasising that the success of the enterprise in no small way rests on the competence of its frontline managers and that these managers are important links to achieving the business goals of the enterprise (Australian National Training Authority 1996).

The educational theory underpinning the FMI is that of adult learning, particularly andragogy (Dailey 1984), but with a new emphasis on practical learning and competencies, particularly those for professionals (Beckett 2000). This is of special interest to the CS&H industry, sections of which are highly advanced in this area (ANCI 1998). For example, they are familiar with the organic nature of practical learning, the importance of mentoring and the notion of lifelong learning (Beckett 1999; Beckett 2000; Ballou et al 1999; Hager and Beckett 1998; UNESCO 1999).

However, this may be an example of what Argyris and Schön (1974) identify as the dichotomy between espoused theory and theory in use, as studies have shown that health professionals are not keen on work-based learning, particularly work-based assessment (Currie 1998; Loan-Clarke 1996). Further, the evidence from two studies into management development of health care professionals (Currie 1998; Loan-Clarke 1996) raises questions about the relevance of competence-based programs and qualifications such as the FMI. Both of these studies found that health professionals, particularly graduates, attached little value to nationally certified vocational qualifications based on demonstration of current competence.

Kolb's learning cycle (Kolb 1984) grounds management education and management development in experience and reflective practice. This has been affirmed with management development programs for health professionals (Currie 1995). However, it is often overlooked that Kolb's learning cycle includes moving from abstract concepts to testing their implications in practice. Thus, it accommodates both deductive (moving from abstract concepts to testing) and inductive (experience and reflection approaches) (Vince 1998). Consistent with this is the application from modern psychological theory of the distinction between declarative and procedural memory, leading to an understanding of the dynamic relationships between memory and learning (Thurston 2000). This emphasises that 'the acquisition of skills through procedural learning depends initially on the conceptual knowledge that she/he has acquired through conceptual learning' (Thurston 2000, p 13). For example, a carpenter who has mastered woodworking skills cannot apply these effectively in the absence of an understanding of the principles of structural design (Kim 1993). Thus, in the management arena, it is important for managers to have a basic understanding of the capability of organisation systems and why they function in the way they do, for otherwise they 'lack the systemic understanding necessary to apply basic problem solving skills effectively to complex organisational issues' (Thurston 2000, p 13).

Both the management literature and the management education literature stress the relevance of theory. Many of the management theorists, such as Mintzberg (1999), Weick (1994), Morgan (1994, 1997) and Schön (1994), address educational issues. Bigelow, writing as editor of the Journal of Management Education, says:

> Theory is essential for effective management education. Good theory generates relevant organisational and management learning and outcomes. Theory activates complex insights and catalyzes foresight about causes, patterns and consequences of important organizational and management behaviors. (1998, p 678)

Fayol (1916) argued that management would not be taught effectively until it had a theoretical analysis of management activities, whilst Reynolds (1999a, 1999b) espouses the importance of a critical pedagogy in management education. All of these management theorists stress the need for both theory and critical reflection in management learning.

Whilst most of the health management literature is taken up with issues such as case management and financial concerns, or the more general issue of professional development, there is a consistent thread of literature concerning matters that affect management within the healthcare industry (Cunningham 1999; Guthrie 1999; Johns

1996; Newman et al 1996). Of interest is that the industry is currently taking up the concept of evidence-based practice (Cowling et al 1999), which is consistent with the demonstration of current competence approach of the FMI. However, mention has already been made of the reservations that some health care professionals have expressed about competence-based approaches to management development (Currie 1998; Loan-Clarke 1996). It is suggested that two factors contribute to this particularly. First, health care professionals tend to be primarily concerned with personal career development, rather than enhancing their contribution to the general management competence of the organisation. Secondly, they dislike what they perceive as the overly mechanistic approach to management development of competence-based training.

The organisations and interviews

The perspective of those who provide and use FMI training is the focus of this paper. Interestingly, it did not prove easy to locate providers and then match them with users. Despite a thorough initial search, there proved to be other providers and users of FMI in the CS&H industry in Victoria that were not originally located. Similarly, some of those in the initial set of providers selected for interview, whilst claiming to provide FMI to users in this industry, were not actually doing so.

Initially, the data available at the CS&H ITB was used to identify providers. Further providers were located through our teaching activities and through various contacts in management education and the CS&H industry, including the State Department of Human Services. Finally, the work-in-progress presentation on the project given at the CS&H ITB Conference in June 2000 resulted in some additional providers (and users) making themselves known to the research team. Users were selected so that there was a match between providers and users. With one exception, there was at least one user organisation in the CS&H industry interviewed for every provider to the CS&H industry interviewed. Care was also taken to identify and interview providers offering an alternative to the FMI and users who had decided not to pursue the FMI, with again a match between user and provider.

Managers of eleven provider and eleven user organisations have been interviewed. Their diversity is indicated in Table 2. They were diverse in terms of their location; five of the providers and seven of the users were located in Melbourne, and the others were located elsewhere in the state. The six non-metropolitan providers covered five different areas of Victoria. They included two providers in a large non-metropolitan city and three in smaller country centres throughout the state. The non-metropolitan user organisations were located in the south and west of the state. One non-metropolitan user organisation in the north-east of Victoria declined to be interviewed.

Table 2: Scope of the project

	Public	Private	Large	Small	Metro	Regional
Providers	✓	✓	✓	✓	✓	✓
Users	✓	✓	✓	✓	✓	✓

Both public providers and private registered training organisations (RTOs) were involved. Overall, there were six public providers and five private RTOs, of which two and four respectively were located outside Melbourne. All of the six public providers were TAFE colleges. Of the five private RTOs, two were in adult and community education (together with other activities); one was a major metropolitan provider of management training which operated throughout Australia; one was a community-based organisation in a major non-metropolitan centre; and one was providing FMI for a particular organisation in the CS&H industry. Some of the public providers were using profile hours for FMI, others were using fee-for-service through their commercial arm, while there were cases where both approaches were employed. Some TAFE Institutes were providing frontline management training through their social and community services departments, whilst others were providing it through their business studies departments. User organisations included public and private, including religious-based organisations.

The organisations varied greatly in size. There were some large providers. One (private) organisation stated that they were running 44 FMI programs in the first half of the year. Another (public) provider stated that they were running about 30 FMI courses a year at present, with 'hundreds of participants'. Those interviewed were generally sensitive about precise student numbers, costing and other matters that were seen as commercial-in-confidence. Other providers, especially those in the country, were much smaller. For example, one provider in a country centre was providing FMI training for two groups in outside organisations within the community services and health industry, with ten and six participants respectively. Another country provider had 30 FMI students during 2000, including eight from the CS&H industry. Similarly, user organisations included: large metropolitan hospital networks; specialist hospitals; large and small disability service organisations in both metropolitan and country locations; community service organisations; and discrete units of larger organisations. These are indicated in Table 3.

Table 3: Type of community and health service included in study

Type of service	Provider organisation interviewed	User organisation interviewed
Paramedical	✓	✓
Nursing service	✓	✓
Teaching hospital	✓	✓
Specialist hospital	✓	✓
Welfare agency	✓	✓
Disability services	✓	✓
Aged care	✓	✓
Child care	×	×

Some providers were undertaking FMI training primarily for themselves. Nine of the providers, of which six were public providers and three were private RTOs, were focused on providing FMI for external organisations. Two providers were providing FMI training programs internally, as part of the development of their own frontline

BEST COPY AVAILABLE

managers, with the intention of providing it at some time in the future to external organisations, including organisations in the CS&H industry. One of these was a large CS&H organisation which had registered as an RTO primarily to provide FMI to its own staff. A third of all the FMI providers had used FMI initially for the management development of their own staff and then proceeded to offer it to external organisations. As one provider put it: 'After the experience of providing FMI training to our own staff we feel we have a product to offer'. These FMI providers were generally smaller organisations and tended to be located outside Melbourne.

The interviews

All of the interviews were conducted face-to-face, with the exception of one provider in a remote location in country Victoria who was interviewed by telephone. Prior to the interviews managers were contacted in writing to request their agreement to participate. Included with the initial letter was a plain language statement setting out the purpose of the research and a consent form to be signed by participants, in accordance with the approval granted by the Human Ethics Research Committee of the University of Melbourne. Interviews lasted between three-quarters of an hour and an hour. All interviews were taped and the transcripts, after typing, were checked against the tape for accuracy.

The interview was conducted by reference to a semi-structured interview schedule. Most interviews followed a similar pattern, although there was some variation to cover the diverse situations of different organisations and exploration of particular points of interest that arose. Additional written material was sought from organisations, although relatively little was provided. The interview was structured around four main areas of interest:

1. What FMI programs was the provider offering for the CS&H industry in Victoria, or what FMI program was the organisation undertaking, and what was their current experience of FMI?

2. What were the reasons for providing (or not providing) FMI training for the CS&H industry, or why did they undertake (or not undertake) FMI training?

3. What did the person being interviewed see as the main strengths and weaknesses of the current provision of frontline management training for the CS&H industry in Victoria?

4. In what ways, if any, would they change the provision of FMI training in the light of their experience?

Findings from the interviews

Variation of the FMI programs

There were considerable variations in the FMI programs provided and undertaken by the organisations. There were also some differences among participants, with the majority having chosen to participate in the frontline management training, while a few had been instructed to go ('they were the ones who were most difficult to deal with'). However, there were two broad models anchoring each end of a range of provision.

In the first model, FMI was essentially viewed by the providers as being conceptually similar to programs of management development which they had provided previously. The program was quite formal in its mode of delivery, including 'lectures' (user terminology), and in one case a two-day, live-in session at the beginning of the program. In this model, regular workshops were held for participants approximately once a month for most of the year, but varying with the level of the FMI program being offered (which ranged from AQF4 to AQF5). The workshops were 'off-the-job', with work time allocated by the user organisation.

There were work-based projects, generally of a very applied and practical nature, to be undertaken by participants between the workshops. Reading, application of principles identified in the workshops and a heavy element of contextualisation were all involved. Stress was placed on the role of mentors and/or coaches. Considerable emphasis was also given to assessment. The provider assumed responsibility, not just for the assessment of an appropriate process, but also for assessing that the specific competencies had been attained and were being applied by the participants in their workplace. As one provider commented:

> The whole point is along the lines of you actually are achieving competence, so you might need to go back until you achieve competence and giving them something to work towards. - You've got that opportunity to go back into your workplace and work until you achieve that competency.

There was a focus on the perceived quality of the process and that the participants should see it as a quality program. As one user commented 'While we value people we want to see a quality course given', and

> generally you see, after the two day live-in programi - there's the 'Oh my God, look at the amount of work' because - once they get into it and start looking at the quality of the information that they're getting and its relevance to the [organisation] - they're very task oriented people.

There was a close partnership between the FMI provider, the participants and their organisation throughout the training program. This model of FMI provision was the one adopted by the largest public and private providers. It was the one undertaken by the large organisations and with people who had higher levels of formal educational qualifications. In these instances there tended to be a good strategic fit between provider and user organisations.

The second model placed more reliance on workplace assessment and the identification of gaps in experience or management competencies. There was less emphasis on workshops, on management theory and on assessment by the provider of management competency levels achieved by participants. There was a greater relative emphasis on the proper process for assessments and a greater reliance on the industry partner for the assessment. This model could work well in certain circumstances, and it may be the only model in which particular enterprises would participate. 'The main advantages are reason to do it, because it's not like their going back to school', and 'I think the more informal way, certainly in FMI is important. They need to learn as fun'.

Both users and providers stressed externalities associated with the learning, such as increased confidence and sense of self-worth, and that the participants had no formal qualifications. 'Most of them have no qualifications whatsoever. Most of them are housewives. Most of them also work part time only'. It was argued in the interviews that this approach is better able to accommodate the realities of work pressures in the modern workplace, and permits short term adjustment to other organisational priorities when necessary. In a number of cases where the provider adopted this approach, assessor training was an important part of the FMI program.

Where gaps in competencies were identified for a participant, and sometimes this was due to the nature of the participant's work role in the organisation, an effort was frequently made to incorporate particular development opportunities or relevant project work –

> I've actually got a copy of one of the projects that has been finished for one of the supervisors who is a particularly bad communicator. Her project was on communication. (manager of a user organisation)

Where organisations face new challenges, are seeking to operate in improved ways, and believe that FMI training can assist them in pursuing their objectives more effectively, it was argued in the interviews that this approach can raise industry interest and generate continuing commitment from both the organisation and the participants. However, it was less clear what mechanisms would operate to identify promptly any problems that might arise and how they might be adequately addressed. Some respondents expressed particular concern in this regard – 'Well the danger is, because you're not running every candidate through the same examinations or assessment, it is very variable how they're going to be assessed' (manager in a user organisation). In general, both the providers and users who adopted this approach tended to perceive the FMI as conceptually different from many earlier programs of management development, believing that learning was strongly focused on processes and reflection within the workplace.

However, providers taking both approaches tended to agree that industry has a tendency to focus on training to meet short term needs. For example, one provider commented that 'time and again we actually have to cancel or postpone training sessions because there's been a sudden influx'. Another provider noted that 'there still tends to be a fairly strong culture of just responding to the immediate need'. In contrast, they saw the FMI as a strategic process which contributes to enhancement of the competencies of frontline managers in the longer term and which has the potential to influence the wider organisation in which they work.

Providers taking both approaches saw a need to educate industry about the differences between FMI training and many traditional management development activities. One provider commented that 'one of the things that worries me about what I have seen about some of the FMI information that's available, particularly on the internet, is that it's just another course. And its value is in effect that it's not'. Interestingly, while the FMI learning materials were generally found to be helpful, the interviews revealed that few of the providers were using them and few of the users were aware of their existence. Partly this was because the needs of participants in the FMI programs varied, as did the activities of the various organisations and their level of management sophistication. One small country provider organisation commented 'We're glad the eleven books are there, it helps us as we go way beyond them'. One large private provider said: 'We don't use the Prentice Hall books. We are glad they are out there in the market, but we have developed our own material'.

Issues were raised in three related areas. The first regards the level of general management theory required for FMI participants, especially for those primarily undertaking FMI in the workplace, in a specific organisation with a limited mission, or for providers coming from a management education focus. When the largest public provider was asked how much of the eleven Prentice Hall modules they actually used in their FMI programs, the response was: 'I don't think we use them a lot ... We think it was a very good start ... And I know they have revised it ... But our facilitators would not be drawing on it very much, because to be honest we didn't find it very helpful'.

The second issue is the extensive contextualisation which occurred, so that the FMI was often the initial platform from which a management training program was developed, rather than the training program itself. Contextualisation has important benefits, but it presents difficulty for those whose work only involves a limited range of management competencies. There were particular issues here for some organisations (both large and small), for example where frontline managers did not require financial knowledge. As one manager of a large disability services organisation commented 'I mean most of the team leaders – they don't do the budget'.

Another comment concerned the particular characteristics and culture of organisations in the community services and health industry:

> A lot of people in human services don't see management and human services sitting well together. The whole two years they are here, sometimes they struggle with those concepts ... they don't like the concept of management, because we're caring and sharing people, and management doesn't really sit well with our philosophy.

Another large public provider of FMI programs emphasised that they

> adhered very much to the adult learning principles, which is that you need to look at the individual adult learner and to give them recognition and a process whereby you provide an individual development plan that is suited to their situation, their experience and their needs. And that links directly to their actual job.

Third, if participants move elsewhere, will they be able to demonstrate competency in the areas, perhaps rather different areas, required by the new organisation for frontline managers?

> Yes, ... the transferability of the skills. And that goes back to the assessment, in my opinion ... Now what we say is, that unless the person can demonstrate the 157 competencies on the job, we will not find them competent, no matter whether they've got an MBA or whatever they've got.

Other comments stressed the importance of current competency, rather than competency some time ago. A country respondent asked: 'if that person left and went to another ... like, industry, would that company agree that they are competent?' There were differences among the users, however. Some felt that the learning would be transferable ('I think it's transportable and they'd be able to take it with them'), but others felt that this would be true only if the participant was moving to a similar position in a similar part of the industry or a similar type of organisation.

Only one of the providers was offering FMI at AQF level 3, AQF level 4 and Diploma level, and only one organisation was undertaking it at AQF level 3. Most organisations were involved with it at certificate IV or Diploma level.

Reasons for providing or undertaking FMI training

The interviews suggested that there were two main pathways by which providers came to offer FMI training.

For the first pathway, they provided it as an extension of management education activities in which they had already been involved. For example, a TAFE college in regional Victoria had been providing management development programs for a major local business for a number of years. When the FMI materials became available, they incorporated them into their program. However, the college's 'mode and method of delivery had not really changed much'. A private provider in a non-metropolitan city gave a similar response. They already provided management training, such as workplace leadership, their activities were growing and they 'added FMI to the existing suite of programs'. The largest provider of FMI training was a private RTO based in the metropolitan area and specialising in management education and development. They saw the opportunity to add FMI training to their existing suite of programs, such as certificates in workplace leadership and in workplace development. Similarly, two large metropolitan TAFE colleges commenced FMI programs following on their previous provision of management training to clients in a range of industries, including CS&H.

The second pathway arose from situations where organisations perceived a need for change and saw FMI as a part of the process for achieving it. They used FMI for their own staff development and organisational change processes, and once they had undertaken that process internally, they saw the opportunities to provide FMI training for frontline managers in other organisations. However, one organisation that had used FMI training very successfully for developing its own frontline managers has never offered it outside the organisation, but would consider doing so in the future. Given that it is early days with the development of the FMI and that it takes some time to move through the various stages, the practice may become more widespread.

User organisations emphasised that a major driver of the FMI, or similar management training being undertaken, was organisation change. 'We restructured the whole way we do things here - restructured the whole operations of the department and reduced operating costs by $1 million', or

> The middle of last year [we] gathered at [country town], it's called the [country town] direction, but they actually stopped and really thought 'where are we going, what should we be doing' - so that at that stage [the organisation] was saying 'we need to have a big cultural change, we need

> to become a value organisation'', or 'Oh we've had three or four CEO changes over the last four years, it's been in uproar.

Yet again - 'We did a service review two years ago'; or 'rationalising our management structure here, new CEO'; or 'well we've been going through - what with being a public hospital, we were moving from the network system, the new health services, so there was all these sort of changes happening'.

Every user organisation cited major change occurring in the period from one to two years prior to their investigation of the FMI as an important driver for them to undertake frontline management training.

Providers commented that when they provide FMI it is often for organisations which 'are looking at change' and 'seeking new ways of working'. Typically there was a new CEO, the organisation had been extensively restructured, senior management was seeking to change the organisational culture and there was external pressure to review policies and practices. FMI training was viewed as a significant element in the change process. Thus, the change motivation could be derived from internal pressures on the provider or external pressures that influence potential clients to seek frontline management training.

But FMI also brings change and an interesting example was provided by a large organisation delivering services in the community services and health industry. They were using FMI extensively as part of wider organisational changes. The organisation is starting to incorporate the FMI competencies into position descriptions across the agency. The position descriptions are being moved from task descriptions to a greater emphasis on competencies. The FMI has provided, for the first time in the organisation, a framework for putting nurses and non-nurses together in relation to the consideration of management competencies for individuals and the management development requirements of the organisation. The FMI training for frontline managers had linked into top management's strategic plans for the overall organisation. Senior management had become more aware of the need to identify core competencies and how to achieve them.

The enterprise argued that the FMI program had been valuable in making this connection more visible to staff throughout the organisation. Similarly, other organisations commented on changes resulting from the increased confidence of staff and their increased understanding of management. So a small country centre staffed by a volunteer board of management is faced with a FMI participant questioning the investment policy of the organisation. A hospital that has a hotel unit as part of its operations has had a participant develop a brochure for internal use on hotel operations in order to increase staffing flexibility. Several organisations pointed to increased inter-departmental communications and improved networks.

Strengths

In general, the FMI was supported as a useful development by the organisations who were interviewed. The largest public provider commented that 'I think they have got it basically right'; and the largest private provider stated that 'I probably wouldn't want much changed'. The providers noted four particular strengths.

The flexible and industry-focused nature of the FMI

As the largest public provider of FMI programs said: 'Its strength is it is industry driven and client focussed. Client responsive'. And the largest private provider of FMI said that 'it encourages partnerships with industry' and emphasises the importance of 'talking to the client'. A large community services and health organisation in Melbourne argued that the FMI program it was running internally was proving good for frontline managers - good for their workplace relations with more senior staff; beneficial for organisational procedures; and good for longer term organisational development.

Another provider, this time a TAFE college in a non-metropolitan area, stressed the value of the FMI in providing additional opportunities for learning on the job by frontline managers. Similar comments were also made in the interviews with most of the users, even if the strengths had not always been realised in their programs. So one user organisation that had experienced many problems with the FMI saw the strength as 'because the FMI is so competency based - we could steer it through the committee and - we had some control over it'. The flexibility was often a decision to use a particular supplier – 'the management group interviewed three and thought that [provider] was more flexible'. Another organisation, not using the FMI, saw 'the advantages that are offered by the FMI are an emphasis on the recognition of current competencies'. This is linked with flexibility by many of the people interviewed, and with a workplace focus by others.

Strengthened assessment and contextualisation

The FMI strengthened assessment and contextualisation compared to what was provided previously. One provider delivered the program in 'five individual ways for the five separate students'. (They noted that 'calling it a course is an aid to marketing'.) As one user noted, 'we've coordinated particular projects throughout the course, but we've tailored them to work situations'. Another user commented about a provider: 'Their attitude to tailoring the course – they were sort of, OK, we have these broad principles on frontline management and you tell us what you want to achieve as an industry. We want to learn about your industry and then we'll come to an agreement about what the course content should be' - and later when discussing the material supplied to the participants - 'there's information on anatomy and physiology and processes that relates exactly to what they do – the work books are tailored and they see words like - and it makes it very relevant'.

Generally the FMI modules were supplemented with other material, sometimes very extensively, as indicated in one case. The management educators particularly stressed the importance of incorporating management principles in the program; the need for reading, reflection and consideration of other circumstances; and interaction with other participants. These aspects can be included in an FMI program, but they were not included as much by some providers as others.

Formal qualification

The FMI provided the opportunity for workplace competencies to be assessed and for a formal educational qualification to be obtained, where this had not previously been possible. This had both equity and efficiency implications. These improved opportunities were well-regarded by frontline managers themselves and by the senior managers in their organisation. As one senior manager in a hospital commented about one participant 'this lady is a highly qualified person and what I did say to her, all you've got on your CV is nursing qualifications. Now at least you've got the opportunity to put something like that there'. Another commended the provider for 'holding a graduation ceremony here - it's a fairly big event'. One organisation noted that the FMI program had also provided the opportunity to improve the structure, delivery and outcomes of their in-service training. Recognition of competencies provides the basis for further education, training and articulation.

Contribution to wider objectives

Finally, in a number of cases, those interviewed commented that the FMI program had contributed to wider objectives. For example, it had enabled participants to increase their levels of competence in particular areas, to become competent in additional areas and to improve their overall performance in the workplace. It had also provided participants with a sense of satisfaction and achievement. The FMI had, in some instances, resulted in improved mentoring and on-the-job support for participants and led to improvements in workplace relationships. Providers stressed the 'ongoing and continuing' impact of a successful FMI program:

> The FMI program is leading the organisation to examine its structure and operations. It has had a strategic flow-on, which was only partly expected at the beginning. FMI is identifying people who can give more to the organisation and who can develop further . . . - FMI can be much wider than just a course.

Weaknesses

Although the eleven providers were generally supportive of the FMI developments, some weaknesses were also identified during the interviews. Many of the weaknesses identified by user organisations, however, were concerned with problems with delivery of the program. For example, one user organisation identified as a weakness the lack of training for mentors and coaches. It is evident that, where there was a good strategic fit between the provider and the user, organisations found it difficult to identify weaknesses with the FMI.

Questions also have to be asked about the appropriate match of the FMI to the participants, and the inappropriate use of the FMI as a general management development tool. As the manager of one organisation not using the FMI commented, when comparing the British MCI and the FMI:

> I mean, the usefulness, it seems to me of the British ones was because it also gives senior level, which they say is at the level where a person's reporting to the Board, which matches our directors' level. And the FMI sort of has a small set which are differentiated by degree through the levels of qualification, but don't necessarily clearly enough delineate what the essential competencies are for the senior people in the organisation.

Another hospital manager talked about senior staff in paramedical fields who are highly qualified, who have done management courses at the Mayfield centre (a training centre within the CS&H system in Victoria), yet who have been persuaded to do the FMI and are then critical of it.

Fears about quality

Concern was expressed about: the extent of management theory and discussion of general principles in the FMI program; the degree of integration between context and overall principles which can occur; the limited time available for reading and reflection; and the extent to which some programs concentrate on the processes by which competencies are assessed, rather than attesting themselves to the competencies achieved and demonstration of their application in the workplace. These concerns were articulated primarily by providers who were management educators, but also by some user organisations. There was general agreement that the FMI can provide a high quality program of frontline management training, but some concerns were expressed about whether all of its variants necessarily do so. One non-metropolitan provider running FMI training for a range of industries, including community services and health, commented that the FMI program needs a reasonable length of time to be effective, but that 'some organisations may want to do it quicker'. Certainly, there was a wide variation in the time over which the program ran and the time commitment required of participants.

This mirrors more general concerns expressed by Schofield and Smith about the quality of traineeship programs in Queensland (Schofield 1999; Smith 1999). In her review of the quality and effectiveness of the apprenticeship and traineeship system in Victoria, Schofield noted a significant level of anxiety about the quality of training (Schofield 2000). She concluded that the combination of multiple modes of delivery, multiple training providers and multiple and very different workplaces is making it harder to manage, monitor and control what actually happens in all training for all apprentices and trainees across all sites. A number of users, as already discussed, were concerned that FMI training be seen as a quality program.

Concerns about assessment

Both providers and users expressed concern about assessment. The largest public and the largest private provider of FMI emphasised that they took responsibility for assessment. However, in some cases the provider of the FMI training, while taking responsibility for ensuring the processes by which competencies were to be demonstrated were adequate, saw it as primarily the responsibility of the user organisation to assess participants. One user was particularly critical of variability in assessment; 'because one middle manager passed on her first assessment - I mean because most of us have been through uni, - it seems you don't have to do much to get a diploma'. Later in the same interview she comments 'they seem to expect a lot more [when assessing] from a person in this position than they do from a middle manager or house supervisor'.

Another interviewee stressed the importance of performance and standards among assessors. Reference was made to 'a large client - you always have a real dilemma in balancing the education outcomes with the client requirements'. A small private RTO in a country town asked for further guidance on the factors to take into account, and how to distinguish between FMI performance at level 3, level 4 and Diploma level. He said that the FMI 'allows a lot of room for interpretation. Assessors can go into it rather differently. It is much less clear cut than in, say, hospitality'.

Lack of interaction between participants in some cases

In some cases there was little interaction between participants. There were very few cases of FMI programs in which CS&H participants from more than one organisation were involved. Only one instance emerged where the FMI program of the provider enrolled participants from the CS&H industry and also from another industry. Many other interviewees, both providers and users, thought it would be a positive experience. Only in four large organisations were there people from differing backgrounds undertaking the program together. The other FMI programs in community services and health enrolled participants from one organisation and generally from the same work speciality. Yet where greater interaction did occur it was seen to be positive:

> [The participants] reflect from each other in terms of what happens in one work environment may not happen in the other, and the experience gained by listening and learning and interacting - it does prompt and bring discussion out in other people that may not occur if they work from the one workplace.

The interaction between participants also reflected the style of the program. In the less formal programs where everything was done at an individual level - 'five FMI programs for five participants', as one provider described it - there was little discussion between participants, as they rarely met as a group.

Costs of the program

The FMI is an expensive program to implement properly in an industry where cost is a major concern. The largest public provider stated bluntly that the full FMI program cannot be delivered properly at the profile rate. One (public) provider commented that

> in fact I have personally directed a number of [profile] hours into the community services area which wasn't necessarily ... which wasn't actually in my business interest to do so, but because I felt I had a commitment to do so. ... What I do is cross-subsidise community services by giving them all the material I've developed in my fee-for-service area.

The private providers, of course, sought to charge enough to cover their costs of providing the FMI; and some public providers had decided not to fund FMI for the CS&H industry through profile, but through their commercial arm (which limited business from the CS&H industry). Whilst for many providers the costs charged to the user were 'commercial in confidence', it seems that there is at least a three-fold variation in costs charged by various providers. There were also variations in what was offered in the program. For example, some providers included costs of training mentors, whereas in other programs it was additional. Consequently, a number of users had FMI programs in which there had been no assistance given to mentors.

Contextualisation and transferability

The providers generally supplemented the FMI modules and used the package of materials as a platform for frontline management training rather than as a fully self-contained program. A large public provider of FMI programs stated that they do not use the FMI modules much, although they recommend that their clients obtain them.

Another provider in a non-metropolitan city commented that 'they're useful tools those Prentice Hall books, but I don't think you really learn much from just going through them'. A large community services and health organisation in Melbourne ran into difficulties with its first FMI program in 1999 and changed its approach for 2000. It still used the FMI material, but has 'brought in quite a lot of additional material', including more theoretical elements and a greater focus on underlying principles. It has also brought in a consultant in the area of management development, who works with the organisation in delivering the FMI to its frontline managers.

Another private provider in a large non-metropolitan city stated that 'the FMI needed to be moulded, over two years, to really fit our needs'. Another organisation that had evaluated the FMI and decided against using it commented: 'it's generic, the FMI. Unless it was changed so that it's more specific – and I mean [organisation's name and function] is pretty, you know, specialised, its pretty specific'. Another organisation not yet using the FMI expressed concern about this aspect: 'the reason we're going down that path instead of the FMI was because of the view that the mechanistic process of the FMI framework would require a fair bit of tailoring to our sector and I wasn't prepared for us to go down that path because the resources weren't ever going to be available'. Whilst some providers are successfully tailoring the FMI to the needs of the industry and individual clients, clearly there are concerns regarding the extent of contextualisation needed for this industry.

The extent of contextualisation also raises questions about the transferability of the training to other contexts. The training manager in a large community service organisation expressed this concern with reference to the language used in the FMI not being the language used in the CS&H industry. The language in the FMI materials was seen as 'very much about manufacturing, but we were aware that we didn't want to cause the program to be altered to such an extent that we would actually impede people's ability to take that training into another industry'. Others felt that the training would be transferable, but only if the person moved to a similar context.

Misfit and match

Whilst all the providers sought to match their FMI provision to the users, there was not a good strategic fit between provider and user organisations in all cases. Clearly there was in the instance where the provider and the user were the same organisation. This was also the situation of: the organisation not using FMI and their provider; between two of the organisations using a very formal FMI provision and their providers; and between one organisation and provider of an informal FMI program. Some reasons for the misfit can be seen to be due to provider behaviour, whilst others seem integral to the FMI itself and raise questions regarding the appropriateness of the FMI in its present form for this industry

Intimate knowledge of the terrain by the provider

As mentioned in the introduction, the concept of 'fit' is borrowed from the strategy literature and can be likened to an intimate knowledge of the terrain, rather than having a map. It is clear that where a misfit occurs, a significant component is due to the provider not having an intimate knowledge of the terrain of the CS&H industry and the particular organisation to which they are providing the FMI training. There are comments such as this from a hospital manager.

> Really they need briefing on how hospitals function - they [participants] find all of a sudden the date's been changed - appointment times have been changed. And [organisation] still doesn't appreciate that that shouldn't be the case. The [organisation] person turned up in the middle of the ward round and said 'I'm waiting to see you'. You can't do that.

This of course contrasts with 'and they did some extensive study on the background of [the organisation], it's operational needs, its infrastructure and particularly the roles of management and the frontline manager within the industry', or 'he [the program director provided by the provider] really got into our organisation and had a look at the culture -'. In the situations where there was a good strategic fit, the provider organisation had not only committed a person to liaise closely with the user organisation, but had provided adequate time for that person to intimately get to know the industry and that organisation.

Mentoring and coaching

In the situation where there was a good fit, training of the mentors and coaches was part of the program and part of the up-front cost. Where there was a misfit and organisations discovered that either there was no support for mentors and coaches or there was an extra cost involved, then there were difficulties. The training manager of a large community service organisation complained:

> We were led to believe when we first negotiated with [provider] that there would be training available for mentors and coaches. But subsequently we found that that's not a part of the process, unless we wished to put them through another course - That's been a very big problem - 3 months into the course and a workshop for coaches was held where the [provider] staff tried to go through the role of coaches and mentors and the coaches wouldn't let them - They feel that they've been cheated.

Or a comment from the manager of a specialist hospital: 'and they offered us to go do the mentors' training course, but I've backed out of that - I'd already invested $25,000 so I wasn't going to pay another $10,000'. The providers in question were also the ones who were not taking the trouble to understand the special features of the CS&H industry.

Assessing

In the situations where there was a good fit between provider and user, and the strategic purposes of the user organisation were being met through the FMI, no concerns were raised about assessment during the interviews with users. In the other organisations, assessment was a major concern. A CEO of a smaller disability services organisation commented on the assessment process: 'wander in here and say, 'hey have you done this?', tick, your halfway to a diploma'. Another CEO quoted a participant who had put 'responded to a request by the CEO for feedback'; 'as long as you put in some time then you are competent. It should be advertised as an assessment tool rather than a course where new information has been learned'.

Another training manager of a large disability services organisation expressed concerns about the demonstration of current competency: 'Some people really freaked out and they came with reams and reams and reams of evidence that they really didn't need. Some people put in that much [small amount indicated with hands] and passed. So - ?'. Others expressed concerns that this was a nationally accredited certificate, but the assessment seemed so variable. Several providers commented that the FMI material needed more guidance for assessors.

Mode of learning and qualifications

It is clear that the FMI, in its original concept, meets the needs of sections of the community services and health industry - eg in those areas where staff have had little formal education and would not contemplate formal education processes. In those areas, when focused on demonstration of current competence and workplace-based, individual assessment, for the greater part the FMI appears to have been a positive experience for the participants, the organisation and the provider. It must be remembered, however, that these areas represent a relatively small proportion of the sector. The large groupings within the CS&H industry are characterised by staff with high entry level qualifications who are encultured into formal education processes. So, the human resources manager of a specialist hospital talked about 'lectures' in the FMI courses being run, and commented that:

> like if they go into the RPL situation of sort of you know the portfolio so a lot of them have sort of looked at that and thought, there's more work in trying to put that together. Better off just doing it as part of the assessment and saves us a lot of time.

Similarly, another successful program commenced with a live-in, two-day workshop and had a day per month off-the-job format: 'it mirrors very much what the guys are used to'. Whilst in another situation where there was a misfit: 'We really need to have that very clearly explained I think at the beginning - and that you aren't missing out on something, not having sat in the classroom for the full 40 hours'. The suggestion here is that there needs to be a match between the preferred learning style of the participants and the style of delivery for there to be a strategic fit; and that there appears to be a correlation between the extent of formal education among participants and the formality of the provision of the program.

Is the CS&H industry different?

Central to the wider picture of the fit of the FMI to the industry is the question of the uniqueness of the CS&H industry. It is clear that the managers of provider organisations perceive the industry to be different. On the user side, the manager of a specialist unit in a regional hospital expressed this as a sense of responsibility to the community:

> as a corporate citizen, I think we need to do that as well. The hospital is going to be in [town] well and truly longer than I'm going to be here. So we need to develop the Department that way. Now private businesses don't think that way. They're thinking for immediate profits. So it's just finding that balance with funding and - I feel because I work for the hospital, it's my responsibility to do that. Yes. I've just put on apprentices because - . I don't want them, - but I feel we've got a responsibility to the community.

Another respondent commented: 'we have to become a values organisation'. In another organisation run by a religious order, the training manager discussed the five-day induction program for new staff and noted that two days are spent on the culture and values of the religious order. Another training manager did not think that the CS&H industry is different from other industries with regard to management training, but 'the values and attitudes type stuff, that's absolutely critical', and 'having people who are involved, that humanistic caring about people attitude'. Others talk about the 'people' focus of the industry. These are values that need to be embodied into the delivery of the FMI if there is not to be a misfit in this particular industry.

Concluding comments

The interviews with the eleven providers and eleven users of FMI training to participants in the community services and health industry in Victoria raised a range of interesting issues.

The training for frontline managers was varied. It met or didn't meet a variety of requirements in enterprises. There was a spectrum of types of FMI programs offered, with a good fit being seen at both ends of the spectrum: the very formal and the very informal training methodology. The significant differences between the FMI programs that were provided reflected important differences between both the providers, including their ability to have an intimate knowledge of the CS&H industry, and also the organisation to which they delivered the FMI program. The differences reflected the providers' ability to contextualise the FMI to the client and the varied needs of the clients.

The FMI program was industry driven as intended, and this can be a major strength of the approach. However, it was not apparent what safety net exists to prevent a deterioration in quality training and outcomes where the approach does not work so well. Concerns were expressed about the quality of some assessments and the portability of FMI qualifications. It is not clear that the FMI delivered by one organisation is the same qualification as that delivered by another organisation, at the same level. The FMI approach is demanding for both the training provider and the users.

The FMI training was frequently related to wider changes in the enterprise. All of the user organisations had undergone significant change in the previous two to four years and this was seen as an important driver for undertaking the FMI program. The interaction between change and FMI training appeared to operate in both directions. The changes in the broader environment acted to stimulate FMI training, while the FMI was part of the process of adjusting to change. The interaction could result in continuous improvement and a learning organisation.

Finally, there were aspects relating to the funding, costing and charging of these FMI programs which can affect what FMI programs are provided, the quality of the mentoring and coaching, the assessment processes, the quality of the programs, how they are organised and delivered, who provides them and who participates in them. These aspects can have significant implications for both efficiency and equity. The evidence of this study suggests that these matters warrant further attention than they have received so far in the changing marketplace for VET training in Australia.

Notes

1. The project has been funded by a grant from the Australian Research Council and is a joint project between the University of Melbourne, Monash University and the Community Services and Health Industry Training Board.

2. For example: Fayol defined the functions of management as being to Plan and Forecast, Organise, Coordinate, Command and Control; and Gulick defined the activities of management as being Planning, Organising Staff, Directing, Coordinating, Reporting and Budgeting.

References

Australian Institute of Health and Welfare (1999a) Australian Institute of Health and Welfare, Health Expenditure Bulletin No 15: Australia's health services expenditure to 1997-98. Canberra: Australian Institute of Health and Welfare.

Australian Institute of Health and Welfare (1999b) Australian Institute of Health and Welfare, Welfare Services Expenditure Bulletin No 5. Canberra: Australian Institute of Health and Welfare.

Australian Institute of Health and Welfare (2000) Australian Institute of Health and Welfare, Health Expenditure Bulletin No 16. Canberra: Australian Institute of Health and Welfare.

Australian Nursing Council Incorporated (1998) ANCI National competency standards for the registered nurse and the enrolled nurse. Australian Nursing Council Incorporated. http://wwwanciorgau/competencystandardshtm.

Australian National Training Authority (1996) Generic management competency standards for frontline management. Brisbane: Australian National Training Authority.

Argyris C and Schön DA (1974) Theory in practice: increasing professional effectiveness. San Francisco: Jossey-Bass.

Australian National Training Authority (1998a) Frontline Management Initiative. Sydney: Prentice Hall Australia.

Australian National Training Authority (1998b) Frontline Management Initiative: Learning Guide Units 1 to 11. Sydney: Prentice Hall Australia.

Ballou R, Bowers D, Boyatzis RE, and Kolb DA (1999) Fellowship in lifelong learning: an executive development program for the advanced professionals. Journal of Management Education, vol 23, no 4, pp 338-354.

Barnard DI (1938) The functions of the executive. Cambridge, Massachusetts: Harvard University Press.

Barratt-Pugh L (2000) In search of truths: pursuing the illusions of objectivity or mirroring the processes of learning? Paper given at the AVETRA Conference, Canberra, 23 March.

Bartol KM, Martin DC, Tein M and Matthews G (1998) Management: a Pacific Rim focus. Sydney: McGraw Hill.

Beckett D (1999) Past the guru and up the garden path: the new organics management learning. In D Boud, and J Garrick (eds) Understanding learning at work. London: Routledge.

Beckett D (2000) Making workplace learning explicit: an epistemology of practice for the whole person. Westminster Studies in Education.

Bigelow D (1998) The theoretical content of what we teach in the management classroom: needs and issues. Journal of Management Education, vol 22, no 6, pp 677-681.

Boyatzis R (1982) cited in Currie (1998).

Carroll SJ and Gillen DA (1987) Are the classical management functions useful in describing management work. Academy of Management Review, vol 12, pp 38-51.

Clarke M (1999) Management development as a game of meaningless outcomes. Human Resource Management Journal, vol 9, no 2, pp 38 - 49.

Constable J and McCormick R (1987) A report for the BIM and the CBI into management training, education and development: BIM survey. Northants, UK. British Institute of Management.

Cowling A, Newman K and Leigh S (1999) Developing a competency based framework to support training in evidence based healthcare. International Journal of Health Care Quality Assurance, vol 12, no 4, pp 149-160.

Cunningham TT (1999) Developing physician leaders in today's hospitals. Frontiers in Health Services Management, 15, no 4, pp 42-44.

Currie G (1995) Learning theory and the design of training in a health authority. Health Manpower Planning, vol 21, no 2, pp 13-19.

Currie G (1998) Stakeholders views of management development as a cultural change process in the health service. International Journal of Public Sector Management, vol 11, no 1, pp 7-26.

Currie G and Darby R (1995) Competence based management development: rhetoric and reality. Journal of European Industrial Training, vol 19, no 5, pp 11-18.

Dailey N (1984) Adult learning and organisations. Training and Development Journal, vol 38, pp 66.

Drucker PF (1954) The practice of management. New York: Harper and Row.

DTZ Pieda Consulting (1998) Evaluation of the business benefits of management development. Research report no 66, Department of Education and Employment, Sudbury, Suffolk.

Dunphy D, Turner D and Crawford M (1997) Organisation learning as the creation of corporate competencies. Journal of Management Development, vol 16, no 4, pp 232-244.

Ellerington K (1998) The Frontline Management Initiative, in different drums, one beat? In F Ferrier and D Anderson (eds) Economic and social goals in education and training. Leabrook, South Australia: National Centre for Vocational Research.

Evans J (1993) Assessing the MCI Standards. Personnel Management, vol 26, no 4, pp 53-55.

Fayol H (1916) Industrial and general management (translated from the French original by Constance Storrs 1949). London: Pitman.

Garavan TN, Barnicle B and OSuilleabhain F (1999) Management development: contemporary trends, issues and strategies. Journal of European Industrial Training, vol 23, no 4/5, pp 191-207.

Gulick L and Urwick L (eds) (1937) Papers on the science of administration. New York: Institute of Public Administration, pp 3-13.

Guthrie MB (1999) Challenges in developing physician leadership and management. Frontiers in Health Services Management, vol 15, no 4, pp 3-26.

Hager P and Beckett D (1998) What would lifelong education look like in a workplace setting? In P Jarvis, C Griffin and J Holford (eds) International perspectives on lifelong learning. London: Kogan Page.

Handy C et al (1987) The making of managers: a report on management education, training and development in the United States, West Germany, France, Japan and the UK. The Handy Report, National Economic Development Office, London.

Hayes J, Rose-Quirie A and Allison CW (2000) Senior managers perceptions of the competencies they require for effective performance: implications for training and development. Personnel Review, vol 29, no 1, pp 92-105.

Huberman M (1990) Linkages between researchers and practitioners: a qualitative study. American Educational Research Journal, vol 27, no 2, pp 363 - 391.

IPD, Institute for Personnel and Development (1993) MCI should consult more, say executives. Personnel Management, vol 25, no 7, p 52.

Jacques E (1990) In praise of hierarchy. Harvard Business Review, January/February.

Johns J (1996) Trust: key to acculturation in corporatized health care environments. Nursing Administration Quarterly, vol 20, no 2, pp 13-25.

Jubb R and Robotham D (1997) Competencies in management development: challenging the myths. Journal of European Industrial Training, vol 21, no 5, pp 171-175.

Karpin Report (1995) Industry taskforce on leadership and management skills. DS Karpin, Chair, Enterprising Nation. Canberra: Australian Government Publishing Service.

Kilcourse T (1994) Developing competent managers. Journal of European Industrial Training, vol 18, no 2.

Kim DH (1993) The link between individual and organizational learning. Sloan Management Review, vol 35, no 1, pp 37-50.

Kolb D (1984) Experiential learning. Englewood Cliffs, New Jersey: Prentice-Hall.

Kotter JP (1982a) The general managers. New York: The Free Press.

Kotter JP (1982b) What effective general managers really do. Harvard Business Review, November-December, pp 156-167.

Lester S (1994) Management standards: a critical approach. Competency 2, no 1, pp 28-31.

Loan-Clark J (1996) Health care professionals and management development. Journal of Management in Medicine, vol 10, no 6, pp 24-31.

Loan-Clarke J (1996) Management standards/NVQs and business benefits: the need for empirical evidence and an evaluation framework to provide it. Journal of Management, vol 15, no 4, pp 35-48.

MacFarlane B and Lomas L (1994) Competence-based management development and the needs of the learning organisation. Education and Training, vol 36, no 1, pp 29-32.

Maclagan P (1992) Management development and business ethics: a view from the UK. Journal of Business Ethics, vol 11, no 4, pp 321-329.

Mahoney TA, Jerdee TH and Caroll SJ (1965) The jobs of management. Industrial Relations, vol 4, no 2, pp 102-107.

McGregor DM (1960) The human side of the enterprise. New York: McGraw Hill.

MCI (2000) Management Charter Initiative. http://www.managementcharterintiative.org.au (accessed 20/10/2000).

Mintzberg H (1980) The nature of managerial work. Englewood Cliffs, New Jersey: Prentice Hall.

Mintzberg H (1989) Mintzberg on management. New York: The Free Press.

Morgan G (1994) Teaching MBAs transformational thinking. In H Tsoukas (ed) New thinking in organizational behaviour. London: Butterworth-Heinemann.

Morgan G (1997) Images of organization. London: Sage.

Newman K, Pyne T and Cowling A (1996) Junior doctors and management: myth and reality. Health Power Management, vol 22, no 1, pp 32-38.

Ott JS (1996) Classic readings in organisation behaviour (second edition). Belmont, California: Wadsworth.

Reynolds M (1998) Reflection and critical reflection in management learning. Management Learning, vol 29, no 2, pp 183-200.

Reynolds M (1999a) Grasping the nettle: possibilities and pitfalls of a critical management pedagogy. British Journal of Management, vol 10, no 2, pp 171-184.

Reynolds M (1999b) Critical reflection and management education: rehabilitating less hierarchical approaches. Journal of Management Education, vol 23, no 5, pp 537-553.

Robbins S, Bergman R, Stagg I, and Coulter M (1999) Management (second edition). Sydney: Prentice Hall.

Robotham D and Jubb R (1996) Competences: measuring the unmeasurable. Management Development Review, vol 9, no 5, pp 25-29.

Schofield K (1999) Report of the Independent Investigation into the Quality of Training in Queensland's Apprenticeship System. Brisbane: Queensland Department of Employment, Training and Industrial Relations.

Schofield K (2000) Delivering quality: report of the Independent Review of the Quality of Training in Victoria's Apprenticeship and Traineeship System. Melbourne: Office of Post-Compulsory Education, Training and Employment, Department of Education.

Schön DA (1988) Developing effective managers: a review of the issues an agenda for research. Personnel Review, vol 17, no 4, pp 3-8.

Schön DA (1994) Teaching artistry through reflection in action. In H Tsoukas (ed) New thinking in organizational behaviour. London: Butterworth-Heinemann.

Selby Smith C, Roos I and Wright L (2000) Investigation of the application of frontline management training in the community services and health industry: a progress report. Paper given at the Victorian Community Services and Health Industry Training Board Conference, Melbourne, 22 June.

Sheldrake P and Saul P (1995) Change and the first line manager: a study of the changing role and skills of first line managers. In Industry Taskforce on Leadership and Management Skills, Karpin Report - Enterprising nation: renewing Australia's managers to meet the challenges of the Asia-Pacific century (volume 1). Canberra: Australian Government Publishing Service, pp 665-711.

Shenhar AJ and Renier J (1996) How to define management: a modular approach. Management Development Review, vol 9, no 1, pp 25-31.

Smith LR (1999) The impact of user choice on the Queensland training market: a progress evaluation. Brisbane: Department of Employment Training and Industrial Relations.

Stawb B M (1987) Organisational psychology and the pursuit of the happy/productive worker. California Management Review, vol 28, no 4, pp 40-53.

Stewart R (1982) A model for understanding managerial jobs and behaviour. Academy of Management Review, vol 7, pp 7-13.

Strebler M (1995) Developing a competence based management training program. Management Development Review, vol 8, no 3, pp 32-35.

Thurston EK (2000) Enabling systems thinking in the Mesonic millenium: the need for systematic methodologies for conceptual learning in undergraduate management education. Journal of Management Education, vol 24, no 1, pp 10-31.

UNESCO (1999) Lifelong learning and training: a bridge to the future. Second International Conference on Technical and Vocational Education. UNESCO, Seoul, Paris, April.

Vince R (1998) Behind and beyond Kolbs learning cycle. Journal of Management Education, vol 22, no 3, pp 304-319.

Weick K (1994) Cartographic myths in organizations. In H Tsoukas (ed) New thinking in organizational behaviour. London: Butterworth-Heinemann.

Whittaker J (1998) Pass notes. People Management, vol 4, no 19, pp 36-40.

Winterton J and Winterton R (1996) The business benefits of competence based management development. DFEE Research Studies R516. Sudbury, Suffolk: Department of Education and Employment.

Winterton J and Winterton R (1997) Does management development add value? British Journal of Management, vol 8, no S1, pp S65-S76.

Contact details

Ian Roos
Email: i.roos@edfac.unimelb.edu.au

IT Training Package and the workplace context - HOW?

Santi Ruiz, Richard Earl, Julie Ruiz and Pam van den Broeke

Douglas Mawson Institute of TAFE, South Australia

The Information Technology (IT) Training Package has an obvious emphasis on assessment occurring in the workplace or in a simulated work environment. The challenge for educational institutes is how to deliver institutionalised training and meet this requirement. How will it differ from past practices? There is some hope of achieving this requirement if we are working with small student numbers and one qualification, but how do we handle the workplace context emphasis if we have enrolments in the hundreds or thousands across multiple qualifications?

The Evidence Guide section from many of the competency units in the IT Training Package state that 'Assessment of this unit of competency will usually include observation of real or simulated work processes and procedures...'. At the Douglas Mawson Institute of TAFE IT Department, we investigated the possible approaches, such as only taking on traineeships, requiring a Practice Firm component for all assessments, requiring an industry placement component for each award, changing assignments to case studies etc. This paper discusses the options considered and explains the approach finally taken with unexpected success.

We begin this paper with a brief summary of the options we considered.

Option 1: Do nothing different. Perhaps change the titles on our assessment instruments from Assignment to Case Study.

This would be the easiest solution, but this is not really in the spirit of the training packages. We currently assess using a combination of assignments and tests. Most assignments are written based on some scenario for a fictitious business, and test questions are designed so that the student can complete the test in 2 hours. However, it is questionable that this assessment strategy is really a simulation of a workplace. This argument is being used.

Obviously, the workplace is often not so sterile and problems are not presented in the nice neat packages that assignments usually are. It can be argued, however, that this is necessary during the learning process to gradually develop a person's skills and knowledge in each functional area (Design, Build, Test, Support etc). The problem with this direction is that it does not currently present a consistent theme across subjects. There is no relationship between the Introduction to Programming assignment, the Advanced Spreadsheet assignment and the Introduction to Computing assignment. Certainly in a real workplace the business does not change when working in different functional IT areas. For example, if you are working for a retail business installing their LAN, then you don't suddenly get allocated a task that involves producing a web page for a car manufacturer. We do not believe this approach alone is a suitable course to take. Its main appeal is its simplicity.

Option 2: Require an industry placement component for each award from Certificate II onwards.

This has educational appeal, but is it realistic? This means that a person cannot get a result in any competency until they demonstrate the competencies by performing certain tasks in an industry placement.

The biggest difficulty is in finding industries that are willing to take on students for the purpose of assessment. In our case, 150-200 students would have to be placed at the end of Certificate III in such a way that we can assess hardware, network, operating systems, applications and communication-related competencies. Is this possible?

Many units indicate in the Evidence Guide section that 'Assessment of this unit of competency will usually include observation of real or simulated work processes and procedures…' and that 'competence in this unit needs to be assessed using formative assessment to ensure consistency of performance in a *range of contexts'* (emphasis added). The formative assessment in a range of contexts is not possible by simply having a component of industry placement. Perhaps the formative assessment could be handled by giving a result in a subject but not in the competencies until the industry placement has occurred, at which time the summative assessment can occur and the units can be accredited. Perhaps we have a group of competencies that are more enterprise based (such as Relate to client on a business level, Communicate in the workplace etc) that are only achievable through the completion of a project within an industry placement. We then accept the use of assignments in each subject as our simulation of the workplace-based assessment for those units. How do we fit this in a 6-month full-time course?

Overarching all of this is the problem that we began with – how do we find industry placement for so many students?

Option 3: Only take on traineeships.

This would be wonderful. Unfortunately there are similar problems to the previous option - how do we find enough industries willing to take on a trainee? How do we cater for part-time people; people who already have jobs that are wishing to retrain? This is a idealistic solution but not a realistic one. Nevertheless, considering the training package emphasis on the workplace, increasing the number of trainees should be one of the goals.

Option 4: Require a practice firm component for all assessments.

When we started looking seriously at work-based assessment, we felt that the practice firm approach would be the best. A practice firm is a simulated work environment where students could go to 'work' and trade with other practice firms from around the nation and in fact around the world. The practice firm would run as a business would, with its own purpose, supervising staff and premises. Students attending the practice firm would be required to present themselves professionally at all times. The practice firm would have processes and procedures in place to ensure that the experience was as meaningful as possible. Ideally, it would be sited off campus, with students given the options of attending the practice firm during the semester, or preferably, in a block at the end of semester.

In reality, our wide range of clients - full-time, part-time, flexible delivery and Traineeships at the Certificate II, Certificate III, Certificate IV and Diploma levels - makes it very difficult to find an ideal solution. We believe a practice firm can play a role, but alone it has similar problems to industry placement - including the logistics of putting all students through such a firm.

The practice firm would provide a more controlled environment, with experienced educationalists and technically competent coordinators. It would assist with placements for part-time students, provide a pre-placement option for students that are struggling, and allow our 50+ auspiced schools to place some of the increasing number of IT VET students.

The preferred solution

The DMIT Information Technology department felt that a combination of all the above methods would best meet the requirements of the training package and students, and be achievable by the Institute. This led to the development of our model for work-based assessment.

DMIT information technology model for work-based assessment

Each subject is assessed by a combination of formative assessment throughout the subject (which may be verified by a supervised test at the end) and a summative assessment. The assessments are based on a common theme related to a particular fictitious enterprise across all subjects. This is essentially assessment option one, with a better connection between subjects. In other words, it is what we do now with some across-subject coordination of assessments and resources. This approach is focused on the entry level awards of Certificate II and Certificate IV (Client Support) where we have developed textbooks customised to the competency groupings in our training strategy. For higher-level qualifications, the theme will continue in the assessment instruments but obviously not in the off-the-shelf textbooks.

The enterprise that the subject assessments relate to will need to be 'attended' to gain the enterprise skills appropriate for that level, but those enterprise skills cannot be accredited until the industry placement is done (next paragraph). The enterprise will also supply technical support for the assignments in the subjects. This is not much more than the support classes we already have. The difference is that the early support classes will provide the theory for the enterprise-style units, eg Communicate in the workplace, Work effectively in an IT environment, Apply OHS procedures, and Receive and process oral and written communications (all Certificate II examples).

There will be a requirement for industry placement for each award. This is a combination of option 2 and 4 from the discussion paper. This industry placement ranges from two weeks at the Certificate II level to eight weeks at the Diploma level. The award can only be given once the industry placement occurs, allowing for a summative assessment of the enterprise skills and one subject area (eg applications, networks, hardware - (Certificate III examples). This is essentially our current project subject, but available at each award level. Students who do not wish to exit can defer their industry placement, and undertake a longer work placement at the end of their studies. This differs from the current project, as it requires *attendance* in the industry as well as the completion of a task (one or more!).

Industry placements will be organised by the Institute unless otherwise requested. When we cannot find industry placement, then we use our practice firm. Our practice firm is a Contracting Agency that provides industry placements for IT professionals in a timely fashion through good industry connections. This Contracting Agency will have employees, accounts, marketing, networks, databases, a webpage etc.

Overall, the model is an integration of the typical classroom-based delivery, structured support classes and a final year project, and contains elements of all options discussed earlier. We believe it follows the philosophies of the training package, particularly its **emphasis on competence in a workplace context**, the use of **holistic assessment** strategies and the **formation of industry partnerships**.

The concern in being able to place all students (eventually in the order of 300-400) still exists, but this emphasises the need for appropriate strategies, such as developing industry partnerships and industry-based practice firms.

Some of the issues we addressed

When does the student need to complete industry placement?

Students will not be eligible to gain an award until they complete the industry placement component of that award. This is no different to needing to complete other assessment instruments or in fact other more technical IT subjects. Students who are continuing with their studies can defer the industry placement until a higher-level qualification. In this situation a longer work placement will be necessary. In other words, the industry placement can be left until the exit point, but the total number of hours in industry must be at a suitable level.

What happens if a suitable industry placement cannot be found for the student?

If industry placement cannot be found then students will have to attend the Institute's practice firm.

Can a student find his or her own industry placement?

The student can suggest a firm where he/she wishes to undertake work placement. This business would then be assessed by Institute staff to determine whether it was appropriate for the industry placement component of the course.

How does a student who has a full-time job or has limited availability take industry placement?

Part-time students who cannot take day-time industry placement will have to commit to a Practice Firm session run nightly.

What are the benefits for the student?

Students will exit with workplace experiences – no matter which award level they exit at. Students will gain industry contacts, and be able to use their placement as experience in resumes when seeking future employment. Students may also be offered positions as a result of their placement.

Implementation

Enrolment in work placements was automatically part of enrolling in theory subjects called Enterprise Skills (Certificate II) and Enterprise Skills (Certificate IV). Typically, the Enterprise Skills subjects contain the 'soft skills' - eg Apply occupational health and safety procedures; Communicate in the workplace; Work effectively in an information technology environment; Participate in a team; Apply problem solving techniques to achieve organisational goals; and Receive and process oral and written communication.

These theory subjects were designed to check that students gain the underpinning skills and knowledge to enable them to perform the tasks in a workplace context. They concentrate on the 'what' and 'why' aspects and verify that students have achieved the required level of knowledge and skill by using typical assessment tools such as case studies and role plays. These assessment instruments were intended to follow a fictitious business scenario matching that used by other IT technical subjects, such as Application Packages and Systems Maintenance.

The industry placement would then concentrate on gathering evidence that the students can then apply to the 'what' and 'why' theory in a workplace context. Businesses would have to be vetted to ensure appropriate occupational health and safety procedures, IT infrastructure and best practice processes. The assessment in the workplace would also require evidence gathering using traineeship-type tools in the form of workplace reports, site visits by qualified workplace assessors and student log books. Although the focus of the assessment would be the enterprise competencies, the tools would also allow students to record the technical areas applied during their placement. These technical areas, such as Use advanced features of computer applications, must have been assessed in typical Institutionalised delivery, but would allow students to gather evidence of their ability to perform these tasks in a workplace context for their own resumes.

The risk of placing students not ready to perform in a workplace context was flagged and processes consisting of interviews and the use of some formative assessment tools were developed.

We definitely did not have enough resources or industry contacts to implement the necessary processes to handle the placements ourselves, so we found an appropriate industry partner.

From the inception of our training package implementation in semester 1 2000, we have handled two semesters worth of Certificate II students and one semester of Certificate IV (Client Support) students.

The industry partner successfully placed 46 Certificate II and 21 Certificate IV Client Support students from our 2000 training package delivery.

The following table summarises the results.

	Cert II **Sem 1 and Sem 2 (2000)**	**Cert IV** **Sem 2 (2000)**
Students eligible for placement	82	42
Students opting out of placement*	19	18
Students targeted for placement in practice firm	17	3
Students placed in industry	46	21
Successful placements – pass	38	19
Unsuccessful placements - fail	8	2
Students gaining employment through placement	4	3

* Students opting out of placement for varied reasons, eg RCC, Own Employer, Fail Theory subjects, Withdrawals, or not interested in achieving award at this stage.

A project to upgrade all our textbooks to accommodate the common enterprise theme was instigated.

The negative results

Student reaction to the introduction of work placements was mixed. In particular, students were concerned at having to pay to work for someone, and were fearful of it being 'like work experience at school'. Anecdotal evidence suggests that once students have gone through the process of being placed, they appreciate the structured and IT-focused nature of the placement.

A few employers were not happy with the attitude of the student sent to them. Our experiences have led to an improved screening process.

BEST COPY AVAILABLE

It became evident that the problems in coordinating the sub-contractor's lead time requirements, our own resulting needs and meeting the course duration limitations are issues that need further investigation.

Unfortunately, the lack of funding for the appropriate level of management of resource development affected the incorporation of the common enterprise theme in the resources. This is being addressed by the recent appointment of a manager to the Resource Development Unit. Furthermore, extra funding has been allocated to improve the quality assurance processes, and work has begun in obtaining another industry partner in this area.

The positive results

The vast majority of students were willing and eager to participate, as they could see the benefits of adding, over the 2-year diploma, almost a total of five months of real workplace experience. The contacts made with industry gave students the feeling that they had the 'foot in the door' to gaining employment once they finished the Diploma.

The industry placement has surprisingly resulted in some early employment outcomes. Seven students intending to complete their studies to the Diploma level have gained full-time employment with the business that provided the workplace experience. We were pleasantly surprised that four of these were at the Certificate II level. The employment to placement ratio is approximately 10%. This result needs to be tempered by the relatively small number of placements at this time. We expect this percentage to reduce over time.

The majority of the employers were keen to continue being involved in the work placement program. Some employers requested that the same student be placed with them as they progressed through the qualifications.

The popularity of our work placement is such that we have received enquiries about joining the work placement program from our old award students, students from other TAFE institutes and people from outside the TAFE system.

The practice firm and DMI

The establishment of an IT practice firm was part of the Training Package implementation strategy. It was particularly important, as already we have experienced difficulty in handling real placements for part-time students and students with irregular time availability.

The DMI Practice Firm was not yet operational, but our approaches to its set up again produced some surprising and exciting results.

Most practice firms are based in an Educational Institution, but it was decided early on that DMI's IT-focused practice firm should be placed in a real business premises. This will enable students to truly feel as if they are attending a business and not just another style of classroom delivery, as may be the case when the firm is located within the educational institution. Furthermore, this approach would allow the use of classroom-based simulations as part of the delivery strategy for any subjects (for example Networking), whilst ensuring that students can distinguish these classroom-based simulations from the more formal practice firm with its business processes, procedures and behavioural expectations.

The encouraging result from our negotiations with industry for our Practice Firm location was the enthusiastic interest shown by industry. In the end, we had the luxury of choosing a business that was willing to assist in training, have good business practices, policies and procedures, and provide *know-how*, especially in the set-up phase.

The industry partner needed to be a well-established enterprise, located in a well-defined business district, professionally presented and preferably with a large number of industry contacts to assist us in the placement component of our strategy.

We eventually made an alliance with the second largest personnel Placement Company in the world: Speakman and Associates. This partner will bring the business experiences and supply accommodation within the CBD at Speakman House (Pirie Street). As a bonus, they are willing to provide our students with professional presentation and support services. The practice firm, ADMIT Solutions, was created and will be fully functional by May 2001, ready to assist us in implementing our workplace assessment strategy for semester one 2001 students.

As a result of this alliance, Speakman and Associates will take over the industry placement. They will interview all students, match student placement requirements with employers and competency requirements, ensure employers are suitable and provide support to students during their placement.

The Speakman component of the placement process is the same process they use for placing any professional person. This is an invaluable experience for students.

Contact details

Santi Ruiz
Principal Lecturer
Information Technology Studies
Douglas Mawson Institute of TAFE
621 Goodwood Rd
Panorama, South Australia 5041
Ph: +61 8 8207 2878
Fax: +61 8 8207 2842
Mobile: 0401 125 172
Email: santruiz@dmi.tafe.sa.edu.au

Performance Level Assessment: developing quality and consistency through research partnerships

Kay Sanderson and Ron Pearce

Performance Level Assessment (PLA) is a type of supplementary evidence system for competency-based assessment being trialled by Technical and Further Education (TAFE) Queensland. It was initiated in 1999 based on trials of a supplementary evidence system undertaken by the Architectural Technology Department of South Bank Institute of TAFE (SBIT) in 1999.

The Morningside campus of SBIT obtained approval from the Institute Director and gained support from employers and their Industry Association to trial this system. The main reason for the trial was to find a way that students wishing to articulate to university would not be disadvantaged. The outcomes of the trial were positive.

After investigating the outcomes from the trial, in January 2000 the Board of TAFE Queensland, through the Institute Reference Group (IRG) for Product, commissioned a project on PLA. The term PLA was chosen to avoid any confusion with grading systems based on the provision that units of competency cannot be graded. It was anticipated it would reduce the number of complaints received by TAFE Queensland from students, parents, employers and industry groups by issuing a supplementary evidence report to students based on their performance levels. The IRG (Product) set up a working party to provide guidance and support to the project and commissioned the Centre for Advancement of Innovative Learning (CAIL), Wide Bay Institute of TAFE, to manage the project. Endorsement for the project has not been sought from the State Training Authority as yet, as it is currently a TAFE response to client needs. Also, it is recognised that the PLA system is likely to be an interim arrangement for TAFE Queensland and is likely to provide an informed position to state, other states, the Australian National Training Authority (ANTA) and national inquiries concerning supplementary evidence systems.

How does PLA work?

The PLA system uses three levels of performance: competency achieved, competency achieved with credit, and competency achieved with distinction. Initially students are assessed as competent or not yet competent based on assessment against a unit of competency. A student must be assessed as competent before being considered for a PLA of credit or distinction. To be assessed as competent with credit, a student must:

- demonstrate advanced reliability and responsibility;
- provide evidence of being able to access additional, relevant information and apply appropriately;
- present work with originality and/or creativity;
- demonstrate positive approaches to learning
- demonstrate the ability to work and learn independently and/or within a team; and

- provide evidence of planning and resource allocation to ensure completion of tasks.

To be assessed as competent with distinction, a student must:

- demonstrate exceptional reliability and responsibility;
- provide significant evidence of being able to acquire, validate and apply relevant additional resources and sources of information and use them effectively and efficiently;
- demonstrate significant work output, quality, originality and creativity;
- demonstrate positive approaches to learning with a high degree of motivation;
- display a significant level of independence;
- provide evidence of monitoring and evaluation of work, including the ability to identify opportunities for improvement; and
- demonstrate mastery in application of tasks, ensuring flexibility, efficiency and effectiveness.

In some cases it may not be possible to assess a student against all the criteria for each level of credit or distinction. Teachers are required to select those most relevant to the unit of competency or cluster of units of competency that they are assessing. Performance indicators were used in the trials and are an option to assist teachers in establishing an overall credit or distinction level of performance for each student. The process allows for teachers to give feedback to students on their progression and is intended to provide motivation towards achievement of an overall performance level. Performance indicators range from one to five, each level indicating the following:

1. Minimal evidence of relevant criteria demonstrated
2. Some evidence of relevant criteria demonstrated
3. All relevant criteria demonstrated to achieve competency
4. Advanced level of performance demonstrated
5. Exceptional level of performance demonstrated.

Scope of the project

It is intended that the scope of the project will be such that it will impact upon all TAFE Queensland Institutes and potentially the majority of instructional/assessment staff and students. However, the scope of the pilot, at present, is limited to six qualifications across nine TAFE Queensland Institutes. Qualifications were selected to cover both large and small student populations, and institutes were selected to cover both metropolitan and country TAFE learners. Endorsement by the IRG (Product) for the inclusion of these participants in the pilot was to inform the development of the PLA system and formulate policy guidelines prior to more widespread implementation*.

Prior to commencement of the pilot, a number of professional development activities were conducted for instruction/assessment of pilot participants. These activities included an information dissemination teleconference and a one-day workshop for each industry area involved in the pilot. The workshops supplied participants with the necessary information to understand PLA and to assist them in developing processes to implement the system with their students.

North Point and Cooloola Sunshine Institutes of TAFE research partnership

North Point Institute of TAFE (NPIT) is located in the northern growth corridor of Brisbane. NPIT is one of five Institutes in Queensland piloting PLA in their Diploma of Hospitality Management since mid-2000. Students in this Diploma include full and part-time students, including teenagers and mature aged students. Initially, the hospitality teaching team at NPIT met to discuss their approach to the implementation of PLA. A major issue identified was that of consistency in interpretation of performance criteria between teachers within the Institute and across other Institutes. North Point hospitality teachers approached Cooloola Sunshine Institute of TAFE (CSIT) hospitality teachers concerning the issues of consistency in assessing using PLA. It was decided that teachers from similar delivery/assessment areas should meet. A meeting was arranged between the food and beverage teachers of each Institute.

At the meeting between NPIT and CSIT food and beverage teachers, objective criteria were developed against each performance criteria as shown in Figure 1. For instance, the teachers felt that if they were to assess reliability and responsibility, the criteria they would evaluate would be attendance, handing in assignments and punctuality. On completion of these criteria it was felt that although they had been designed by food and beverage teachers, they were generic enough to translate into other assessment areas. Opinions of teachers in other areas confirmed this belief. Consequently, a template was designed stating the agreed criteria. Both institutes trialled this system throughout semester II, 2000.

In January 2001, another meeting was held between teachers of NPIT and CSIT. This meeting was attended by teachers from all assessment areas of the Diploma of Hospitality Management from both institutes. At this meeting, teachers discussed the application throughout semester II, 2000 of the template which had been designed in the initial meeting. Three major issues emerged:

1. the objective criteria developed were open to subjective interpretation
2. the use of performance indicators
3. the adequacy of the previously agreed objective criteria for assessment.

The group felt that the objective criteria, which had been developed, were still open to subjective interpretation, thus jeopardising consistency. To overcome this, the group felt that a further column ought to be created on the template to clarify the objective criteria. For example, if a teacher uses the criteria attendance, what must a student achieve in relation to attendance to be awarded a credit or a distinction? Through further discussion, it emerged that this criteria may alter depending upon the unit of competency being assessed. Consequently, it was decided that the criteria to be included in the additional column should be specified by individual teachers, for their particular assessment area. However, where more than one teacher assesses a unit of competency or cluster, these teachers should agree on the criteria.

Figure 1: Levels of performance

Student name			
Qualification	Group/class		
Unit code	Unit title		
Performance description	Criteria	PF/ Ind	Comments
1 Demonstrate:			
Credit … advanced reliability and responsibility	Attendance	3	
	Handing in assignments	4	
Distinction … exceptional reliability and responsibility	Punctuality	5	
2 Be able to:			
Credit .. access additional relevant information	Assignment standard	3	
	Research skills	4	
Distinction … acquire and apply additional information and use effectively and efficiently	Liaison with relevant persons in the workplace	5	
3. Present:			
Credit …work with originality and creativity	Assignment presentation	3	
	Practical application	4	
Distinction … significant quality work output with creativity and originality	Selling, greeting, etc	5	
4. Demonstrate:			
Credit … positive approaches to learning	Class participation		
	Attitude and aptitude		
Distinction … positive approaches to learning with high degree of motivation	Motivation		
5. Be able to:			
Credit … work independently and / or within a team	Teamwork	3	
	Self-management	4	
Distinction … display a significant level of independence	Using initiative	5	

6. Provide evidence of:

Credit – planning and resource allocation to ensure completion of tasks	Personal organisation	3
	Time planning	4
Distinction – monitoring and evaluating work and identifying opportunities for improvement	Resource utilisation	5

7. Demonstrate:

Distinction – mastery of tasks ensuring flexibility efficiency and effectiveness	Exhibits a level of 5 in all aims 1–6 above with consistency throughout the unit	Y or N

Source: NPIT and CSIT meeting 1.

1. The use of performance indicators

Most teachers agreed that it is confusing using numerical performance indicators for formative assessment and then finally awarding a level of performance achieved as a credit or a distinction. Consequently, consensus was reached to make the formative performance indicators J for a competency, C for a credit and D for a distinction - the same as the final levels of performance awarded. However, at this stage, it was stressed that these performance indicators are precisely this. They are awarded to give the student an indication of the level at which they are performing, in their various assessment items, towards a competency or performance level.

2. The adequacy of the previously agreed objective performance criteria for assessment

The teachers reviewed the individual objective performance criteria developed by the food and beverage teachers for each level of performance descriptor and made minor changes as shown in Figure 2. For example, under the criteria '… access additional relevant information/ … acquire and apply additional information and use effectively and efficiently', the teachers added a performance criteria of 'discussion/contribution'.

Finally, a new template was developed to reflect the changes referred to above. This template, shown in Figure 2, will be trailed at both NPIT and CSIT throughout semester I, 2001.

Figure 2: Levels of performance

Student Name				
Qualification	Group/class			
Unit code	Unit title			
Performance description	Suggested criteria	Teacher criteria	Pf/ Ind	Comments
1 Demonstrate				
Credit … advanced reliability and responsibility	Attendance		J	
Distinction … exceptional reliability and responsibility	Handing in assignments		C	
	Punctuality		D	
2 Be able to:				
Credit … access additional relevant information	Assignment standard		J	
Distinction … acquire and apply additional information and use effectively and efficiently	Research skills		C	
	Liaison with relevant persons in the workplace		D	
	Discussion/ contribution			
3. Present:				
Credit …work with originality and creativity	Assignment, presentation and content		J	
Distinction … significant quality work output with creativity and originality	Practical application		C	
	Communication skills		D	
4. Demonstrate:				
Credit … positive approaches to learning	Class participation		J	
Distinction … positive approaches to learning with high degree of motivation	Attitude and aptitude		C	
	Motivation		D	

5. Be able to:		
Credit … work independently and / or within a team *Distinction* … display a significant level of independence	Teamwork Self-management Using initiative	J C D
6. Provide evidence of:		
Credit … planning and resource allocation to ensure completion of tasks *Distinction:* … monitoring and evaluation of work and identify opportunities for improvement	Personal organisation Time planning Resource utilisation Analysis skills Self-reflection / Initial reflection Identification of improvement opportunities	J C D
7. Demonstrate:		
Distinction … mastery of tasks ensuring flexibility efficiency and effectiveness	Exhibits a level of 5 in all relevant aims in 1 – 6 above with consistency throughout the unit	Y or N

Source: NPIT and CSIT meeting 2.

Conclusions

This paper describes how NPIT and CSIT are using a partnership arrangement to conduct ongoing research and review aimed at improving the quality of the new PLA system being piloted in Queensland. It explains how teachers, as practitioners, are using action research to develop a consistent, generic, quality approach to PLA, which in turn may be translated for use with other Training Packages.

To date, as a result of this ongoing action research, consistency has been developed on two levels:

1. Across institutes
2. Within institutes.

1. Across institutes

Across institutes, consistency has been developed by:

1. using agreed performance criteria
2. using agreed performance indicators.

2. Within institutes

Within institutes, consistency has been developed by:

1. using agreed performance criteria
2. using agreed performance indicators
3. using agreed individual unit of competency cluster criteria.

Perhaps the next stage will be to develop a closer alignment of the institutes regarding clustering arrangements for assessment purposes. This, in turn, would develop the opportunity to create agreed criteria at the individual unit of competency/cluster levels across institutes. If this can be achieved, it could form the basis of a consistency model which could be replicated across other institutes, other qualifications and other disciplines.

Note

*In December 2000 a full report on the effectiveness of the PLA system was completed and presented to the working party for consideration (Sanderson 2000). Based on this report, the Board of TAFE Queensland endorsed the continuation of the pilot for the year 2001 pending consideration of this report, including the recommendations by the working party.

Contact details

Kay Sanderson
Email: kay.sanderson@detir.qld.gov.au

ACE VET linkages - provider, student and industry views

John Saunders
National Centre for Vocational Education Research, South Australia

ABSTRACT

In recent years there has been a broadening of the range of learning offered by Adult and Community Education (ACE) to include vocational learning as well as the hobby, enrichment and personal development programs traditionally provided in the past. This paper reports on an National Centre for Vocational Education Research (NCVER) study which surveyed the opinions of ACE providers, ACE students and industry organisations regarding ACE vocational education and training (VET) and its linkage with mainstream VET (predominantly technical and further education - TAFE). Issues discussed in the paper include:

- identification of characteristics which distinguish ACE VET from mainstream VET
- mainstream VET sector awareness of ACE VET and linkages with mainstream VET
- current availability of linkages between ACE VET and mainstream VET, and ways of improving them
- vocational training needs ACE might address
- interaction between the ACE and mainstream VET sectors
- whether ACE VET should complement or compete with mainstream VET.

For many years, the Adult and Community Education (ACE) sector was primarily a provider of general education; education focusing on lifestyle, recreation, leisure, personal enrichment, equity, and basic living skills like literacy, numeracy and domestic food preparation. However, in recent years the range of learning offered has been extended to include vocationally oriented learning. Some of this is merely an extension of that previously offered - for it has been recognised that people can apply some of what they learn under the banner of general education in their work. But, over time, ACE has moved towards provision of learning specifically intended to meet vocational needs - needs which, in many cases, were perceived as not being fully met by existing vocational education provision.

ACE vocational education and training (ACE VET) has much to offer in the context of lifelong learning in that it can provide a 'softer' introduction to vocational learning than that offered by mainstream VET. This can be particularly beneficial to individuals who have limited experience of vocational learning, or who have not participated in vocational learning for extended periods of time, or may have had previous unhappy learning experiences.

Having completed initial vocational learning with ACE, many students seek to continue their studies. Sometimes subsequent learning can be undertaken with ACE, however where ACE does not offer anything suitable, it may be necessary to move across to another sector - most commonly to mainstream VET which is predominantly represented by TAFE.

Often, the subject matter that has been studied with ACE overlaps that offered by mainstream VET or can satisfy mainstream VET prerequisites for enrolment in a course. Where this is the case students can be given credit for their completed ACE study. Sometimes this takes the form of direct credit (credit transfer), at other times students gain credit through recognition of prior learning (RPL) or recognition of current competencies (RCC). Arrangements through which students are given credit are generally referred to as linkages. Where linkages have been established by agreement between the two sectors, they give rise to pathways which enable students to pursue planned study routes that traverse both sectors. It should be noted that linkages and pathways can also apply to movement in the other direction - that is, from mainstream VET to ACE, or between other educational sectors.

This paper summarises recent research conducted by NCVER into linkages between vocational education and training provided by the ACE sector and that provided by mainstream VET (mostly TAFE). After identifying characteristics which differentiate ACE VET from mainstream VET, it examines issues relating to linkages between ACE and mainstream VET courses and looks at strategies for improving them. It also looks at vocational needs ACE might address in the future and finally considers the issue of how the ACE and mainstream VET sectors interact.

Features of ACE VET

To many people, ACE learning can be summed up as comprising highly focused programs, often short in length, aimed at providing learners with desired knowledge and skills in a friendly, supportive environment. By extending this definition we can define ACE VET simply as ACE learning which provides vocational knowledge and skills.

When ACE students and providers were asked to identify the features which most distinguish it from mainstream VET, their most common responses fell into four categories as set out below. To many people, these features represent the 'strengths' of ACE VET.

Flexibility of provision

In the context of this discussion, flexibility of provision relates to the ability to cater for the needs of students who find it difficult to fit in study with other commitments (perhaps because of timetabling or location of venue). ACE VET was seen to be more flexible than mainstream VET by about three-quarters of the ACE providers and students surveyed.

Course content and delivery matches student and enterprise needs

Many people felt that ACE, because of its close association with local communities, businesses and students, is in closer touch with vocational needs than mainstream VET organisations. In ACE, the trainer often deals directly with the workplace, determining requirements, designing the training program and teaching it, thus helping to ensure the training accurately matches workplace requirements. With the advent of training packages, this is seen as an especially valuable asset. By being able to attract and draw on part-time teachers and trainers from a wide range of backgrounds. ACE is also in a strong position to select appropriate people for the task.

Friendly, supportive, non-bureaucratic learning environment

Many students, providers and industry representatives strongly praised the informal friendly and supportive nature of ACE. Indeed, the success of ACE as a provider of vocational learning is largely due to the fact that it is perceived as being less intimidating than most mainstream VET organisations. People feel more comfortable studying with ACE, particularly those who, for one reason or another, are apprehensive about study or need ongoing reassurance and support. This feature can be especially important to people who need to return to study because of job changes or loss of employment. Through linkages, some of these people move on to mainstream VET, something they might never have contemplated prior to studying with ACE.

Nature and quality of the courses

People appreciate the care with which ACE courses are designed and the easy-going style of presentation. Students, employers and other industry people indicated that they liked the focused nature of the course content, which in turn helped make the courses relevant and to the point. 'Short', 'sharp', 'snappy' and 'punchy' were words commonly used to describe ACE vocational courses.

Mainstream VET staff knowledge of ACE VET and credit transfer

Results of the study indicate that numerous individuals and organisations are disadvantaged through lack of information about the range of vocational study available from ACE and the possibility of linking it with mainstream VET. Without adequate information, potential students of ACE VET may enrol with other providers in courses less appropriate to their needs or may even refrain from enrolling at all. In the latter case this represents possible lost opportunities for mainstream VET (through the individuals concerned never being in a position to move on from ACE to mainstream VET).

ACE providers saw mainstream VET staff as being largely unaware of the scope of ACE provision and the existence of linkages, and suggested various ways in which they might be assisted to improve their knowledge of ACE VET. These included identification of key linkage staff in each institution, greater cross-sectoral interaction between key linkage staff, visits to each other's campuses, facilitation of phone and email contact, and identification of mainstream VET personnel to whom ACE VET information can be forwarded. Measures to improve ACE VET information included short, reader friendly cross-sectoral ACE VET information newsletters, electronic provision of ACE VET information (websites and email), arranging for ACE presence in mainstream VET information centres at enrolment times and use of national module numbers in ACE course information where relevant.

Linkages between ACE VET and mainstream VET

Linkages enable students who have completed ACE VET to have their learning credited towards mainstream VET study (and vice versa). If students are to gain maximum benefit from linkages, the linkages must be readily available, easily accessed and effective. Indications from research were that there were limitations on all of these aspects.

Availability of linkages

When ACE providers were asked to rate the availability of linkages, in the form of credit transfer, from ACE VET to mainstream VET, just over half saw it as either *limited* or *very limited*. And when asked to indicate whether there were any difficulties encountered in arranging credit transfer from ACE to mainstream VET, again, just over half indicated there were at least some difficulties (30% indicating they encountered *some* difficulties and 24% indicating *many*).

Difficulties cited by ACE providers included:

- indifference of mainstream VET towards ACE and ACE VET credit transfer processes
- lack of recognition of ACE course credentials and of ACE as a legitimate provider of VET, with consequent need for ACE to repeatedly justify course outcomes to mainstream VET for credit transfer purposes
- a tendency for mainstream VET to award credit for ACE learning on the basis of course length (ie time required to complete a course) rather than course content
- excessive need for ACE students to resort to RPL as a means of linking their completed course with mainstream VET
- a lack of awareness, both in ACE and mainstream VET, of the other sector's programs
- a lack of consistency in credit decisions (eg two persons completing the same course being given different credit).

Strategies for improving ACE-mainstream VET linkages

In view of the importance of linkages to students and industry, consideration should be given to removing impediments to their creation and implementation. The following strategies were suggested by ACE providers.

Provide linkage assistance to students

When faced with complicated procedures and a bewildering range of options regarding linking ACE course outcomes to mainstream VET study, students may not always make the best decision, or may give up altogether. Assistance to students should include: provision of regularly updated information on linkages to staff and students, provision of simple guidelines to students and staff on options available and processes to be followed, and provision of direct personal assistance to students preparing cases for RPL or RCC.

Improve communication, cooperation and collaboration between the two sectors

To achieve better provision and utilisation of linkages, there needs to be improvement in communication, cooperation and collaboration across the sectors. To achieve this, the quality of information on ACE VET and its availability to mainstream VET should be improved, and joint ACE-mainstream VET workshops on linkages should be conducted to help acquaint mainstream VET with the standard of ACE VET courses and the professional expertise and integrity of ACE VET staff. Joint workshops would also foster openness and cordiality between linkage staff of the two sectors - qualities which can be quite important to the effectiveness of linkage processes.

Improve promulgation of ACE VET information

To improve access to ACE VET linkages, there needs to be greater promulgation of information about ACE VET course content and linkages. Linkage information should be disseminated through linkage-specific newsletters to ACE and mainstream VET peak bodies. More general newsletters and other publications, containing a register of ACE centres offering vocational courses and a regularly updated list of the courses and linkages available, should be distributed to industry through ITABs, employer associations and similar peak bodies.

Appoint coordinators to act between ACE and mainstream VET

More than three-quarters of ACE providers surveyed favoured the idea of coordinators working with clusters of ACE and mainstream VET providers to coordinate activity across the interface between the two sectors. The role of these coordinators would be to liaise with providers, disseminate information across the cluster, coordinate meetings, and prepare or assist providers with submissions (in NSW some ACE Regional Coordinators and ACE Regional Council Officers are already performing some of these functions).

The benefits offered by appropriately trained coordinators include enhanced communication and rapport across the sectors (particularly where there was a risk that personality or philosophical differences between sector personnel could inhibit effective communication) and maintenance of continuity in relationships between ACE and mainstream VET providers when there were changes in key institution personnel.

Utilise ACE as a regional training broker or coordinator

Provision of vocational training to individuals and groups in outlying areas is often made difficult by the lack of suitable mainstream vocational providers in an area. In many cases, there may be an ACE provider who can assist. While the ACE provider may not have the expertise or resources to actually teach the technical knowledge and skills, it may have the educational, organisational and entrepreneurial expertise to manage and coordinate learning in the workplace and the community. So ACE, through cooperative arrangements, may well be able to assist mainstream VET providers who do not have a venue in a particular area to provide vocational training to local students.

Co-locate ACE and mainstream VET providers on single campuses

Several respondents from the ACE sector commented favourably on benefits associated with ACE and mainstream VET operating from the same campus, particularly in regard to pathways between ACE and mainstream VET.

Increase cooperation in the provision of language and literacy programs

Language and literacy have long been areas in which both ACE and mainstream VET have had involvement. Consideration should be given to fostering effective cooperative approaches to provision of these programs where practicable.

Develop an effective system for cross-sector referral

For students to benefit from linkages, they must choose a study path that enables them to begin with the course most appropriate to their immediate needs and subsequently move on, via the linkages, to a course in another sector. Sometimes this requires an initial referral to a course in another sector. Referrals between ACE and mainstream VET do occur, however most ACE personnel feel that the number of referrals is well below the optimum level. Further development of strategies to foster cross-sector referrals would contribute to more effective utilisation of ACE-mainstream VET linkages.

Share resources between ACE and mainstream VET

One aspect of ACE-mainstream VET cooperation and collaboration suggested by ACE commentators was the sharing of resources such as equipment, premises, teaching staff, and even advertising of courses. Potential benefits of resource sharing, both to ACE and mainstream VET, were: more effective utilisation of funds (through pooling) to provide a better range and quality of resources; and more efficient utilisation of the resources through less idle time.

If the resources are shared in common with mainstream VET, there could be an added benefit for ACE VET in that ACE might be more likely to be perceived as 'teaching to the same standards' as mainstream VET. As a consequence, ACE VET outcomes might be more readily recognised by mainstream. VET making linkages easier to achieve.

Vocational training needs which ACE should address

If ACE is to be an effective provider of vocational training it must take into account the needs of industry as well as the community. ACE providers and industry representatives have suggested that the following industry and associated community needs should be addressed in relation to ACE VET:

- Offer flexibility in course structure, timetabling, delivery format, class size and venue to better satisfy industry and individual needs.

- Include local community focus in determining vocational needs of individuals and businesses.

- Encourage and assist people to commence or return to vocational study - particularly people intimidated by mainstream vocational training organisations and the prospect of 'formal' study.

- Provide vocational learning for people affected by industry change. These include: young people who need to acquire and extend their knowledge and skills, who need to present well and sell their knowledge and skills to a potential employer or client, or who need, in some cases, to commence their working careers as self-employed individuals; and older people who need to retrain in an existing job, compete more effectively for employment, or cope with the prospect of self-employment as an alternative no employment at all.

- Provide package-based training. ACE - with its flexibility and ability to adapt to change, its close affinity to students and its potential for communicating and interacting with local business, especially in smaller communities - should be in a strong position to become a provider of training package-based learning.

- Provide 'segmented' training - that is, short, sharp, focused courses, said to be increasingly sought by industry.

- Provide customised training to meet the needs of individuals and organisations.

- Provide training via the Internet - particularly to regional students whose course requires that they be observed from time to time putting the knowledge and skills into practice.

- Provide entry-level training and job seeking skills to enable individuals to gain entry-level qualifications in an industry, develop job-seeking skills, develop Mayer key competencies and, where necessary, improve language and literacy skills.

- Provide training in management, office and interpersonal skills, such as business management, basic accounting, communication, computer packages (office and small business), report writing, supervision, conflict resolution and networking.

- Provide training in information technology - the abilities of ACE to employ trainers from industry with the latest knowledge and skills and to provide short, focused courses were seen as assets in providing training for this rapidly changing industry sector.

- Provide vocational training for special groups such as people with low language or literacy skills, people with low levels of schooling, women seeking to re-enter the work force, indigenous groups, people with disabilities and job-seekers.

- Provide individualised learning for Centrelink clients.

- Provide trainer training to industry - especially in remote areas.

- Use ACE expertise as an education broker or coordinator to act on behalf of the many skilled vocational training personnel who, having taken retirement packages, seek to work on a casual or part-time basis but lack resources or skills to market their services.

- Establish training partnerships with enterprises and assist with workplace training. ACE - with its ability to develop close relationships with local enterprises, its strong regional presence, established educational background, and ability to recruit industry people with up-to-date knowledge and skills as trainers - is perceived to be well suited to this type of role.

- Provide supervision, mentoring or tutoring in association with mainstream VET providers in regions not able to be adequately serviced by mainstream VET.

Interaction between ACE and mainstream VET

The effectiveness of linkages between ACE and mainstream VET is dependent on the quality of interaction between the two sectors. Key factors affecting this interaction are the levels of cooperation and collaboration between the sector personnel involved and the effectiveness of communication. Interaction will also be substantially affected by the degree to which ACE chooses to complement or compete with mainstream VET.

Should ACE complement or compete with mainstream VET?

In the past, ACE VET has been largely complementary to mainstream VET, providing courses which tie in with mainstream VET offerings rather than duplicate them. With increasing emphasis on vocational learning, some ACE providers are now registered training organisations, offering accredited courses which are essentially the same as those offered by mainstream VET. In this respect, they are moving from a complementary role to a more competitive one. When ACE providers and students were asked whether ACE should be complementary or competitive with mainstream VET, about three-quarters of each group felt it should be complementary.

Reasons for adopting a complementary role were generally based on the argument that competition would waste ACE funds, staff, facilities and other resources. Comments in favour of increased competition came mainly from students and were frequently based on the premise that competition provided greater choice for students. However, in small communities, competition leading to duplication of learning provision would mean that resources which might be used to provide other needed programs could be lost. In that sense, the variety and choice of programs available to the community would be decreased. Other comments in favour of increased competition were that ACE might be able to offer courses which are more suitable for some people than the equivalent ones available in mainstream VET, and that competition would push up the standards of teachers and course content.

A related issue was the suggestion by some commentators that mainstream VET, particularly TAFE, was moving into what was perceived to be the province of ACE. Increased competition between the two sectors, therefore, could be the result of shifts in the focus of both educational sectors. One provider saw the move of mainstream VET towards ACE-style provision as impacting on ACE's long-term survival.

Need for cooperation and collaboration

If ACE and mainstream VET are to work together effectively there needs to be cooperation and collaboration between the two sectors, especially if the two sectors are to complement each other. When ACE providers were asked to rate the current extent of collaboration and cooperation between ACE and mainstream VET, nearly three-quarters suggested it was less than adequate and that more needed to be done to facilitate joint ACE-mainstream VET undertakings. Some of the strategies they favoured as a means of improving ACE mainstream VET interaction were:

- increased information sharing between ACE and mainstream VET
- development of strategic alliances between ACE and mainstream VET
- establishment of learning pathways by continued negotiation
- better sharing and allocation of responsibilities for provision of related courses
- joint provision of courses
- shared use of resources such as premises, teachers and equipment
- development of a clearly identifiable national ACE VET structure (to complement that of mainstream VET), including better identification and coordination of current ACE VET provision at local, regional and state levels
- cross-representation on ACE and mainstream VET management bodies.

Conclusion

Vocational learning provided by the ACE sector offers benefits to learners and industry. Compared with VET available from mainstream providers, ACE VET often offers greater flexibility in venues, times and delivery modes. It also offers people the opportunity to undertake vocational study in an informal, friendly and supportive learning environment and, by encouraging people to take up or return to vocational study, is conducive to lifelong learning. The local focus of ACE providers also enables them to tailor courses to match the needs of local enterprises and communities.

Linkages between ACE VET and mainstream VET enable learners to more easily extend their learning by receiving credit for previous learning in one sector when they move to the other. However, for students to derive maximum benefit from linkages, each sector must be fully acquainted with the linkage concept and willing to recognise vocational learning provided by the other. This requires cooperation and collaboration between the two sectors, which in turn necessitate better communication. It is hoped that by highlighting some of the issues involved and ways in which they may be managed, this paper can contribute to further development and increased utilisation of linkages between ACE VET and mainstream VET.

References

Sanderson K (2000) Report on the Performance Level Assessment System piloted throughout TAFE Queensland, Semester II, 2000. CAIL, Wide Bay, Queensland, Adelaide.

Contact details

John Saunders

National Centre for Vocational Education Research
252 Kensington Road

Leabrook, South Australia 5068
Email: johns@ncver.edu.au

Using training indicators to improve planning for vocational education and training

Stephen Saunders
National Centre for Vocational Education Research, South Australia

Responding to the need for information about labour market changes, skill shortages and social and economic indicators, this paper proposes training indicators for vocational education and training (VET) policy and providers. The idea is to develop indicators that will inform VET providers about changes in the nature of training demand flowing from demographic changes and from labour market adjustments - related to new areas of training demand or related to industries undergoing restructuring because of changes occurring in the economy.

The paper is based on the author's recent NCVER project and report in preparation. That project flowed from a critique (Blandy and Freeland 2000) of various approaches to measuring the adequacy of the 'stock of VET skills', which is a key performance measure for the VET system as a whole.

In addition to reviewing relevant VET literature and contemporary national and State VET plans, the project and its report have had the benefit of advice and commentary from Commonwealth and State employment or training departments, TAFE institutes, and other education and training consultants.

Here, training indicators are taken to mean functional suites of quantitative and qualitative indicators of current or future VET supply and demand, potentially including economic, social, labour market, training and other indicators, which governments, enterprises, training providers or individuals may bring together to guide decisions about investments for skill training, especially at the industry, occupational, regional and course levels.

Such indicators are crucial to the VET planning cycle. To implement the National Strategy for VET and give best effect to the pool of VET funds, the Australian National Training Authority (ANTA) and State and Territory VET agencies use a wide range of training indicators in developing and reviewing their VET plans. Training indicators are an important occupation for NCVER itself, particularly in terms of key publications on enrolments, apprenticeships and traineeships, and student outcomes.

The current levels of demand for training indicators can be related to recent developments in the training system and in the training market, particularly the National Strategy (Australian National Training Authority 1998) and Key Performance Measures (Australian National Training Authority 1999), or 'KPMs' for VET. The current Strategy's market emphases, and the new diversity of training providers and pathways to skills, imply increasing needs for diversified training information to improve the operation of the market.

Pre- and post-ANTA, major Commonwealth, State and other uses of training indicators since the 1970s can be classified and described. These include uses for youth education and training, training policy, skilled migration, job placement needs and vocational guidance. The author's assessment is that this ongoing work has proved its worth for policy and program purposes, especially when it successfully synthesises major demand-side and supply-side training indicators, or derives actual measures that compare training demand to training supply.

Recent initiatives in the VET sector (new VET student and employer surveys began in 1995 – see NCVER 1999a and 1999b) and in employment and education (there are fresh approaches to job outlook and student information programs – see DEWRSB 2000 and Ashenden and Milligan 2000) create fresh possibilities for the better use of training indicators in VET planning and in vocational guidance.

State and regional VET plans are increasingly the place where the important VET decisions are made and training indicators can have a major impact. Whereas published State and regional VET plans (for example DTWA 1999 and OTFE 1999) appear to be organised primarily along industry lines, unpublished TAFE institute-level plans appear to be expressed more in terms of the (adjustments to) provision of educational *courses* that will give effect to industry and regional planning priorities.

Useful directions for the practical use of training indicators can be discussed, as below, in terms of: the national planning background; the place of indicators in VET planning; the market for training indicators; needs and gaps for indicators; classification, forecasting and resourcing issues; and the aptness of indicators for the VET climate.

Training indicators help in meeting the needs of the National Strategy and the measurement framework for the VET system. In recent years, they have often been developed to assess stocks of skills and client outcomes, items that have now become KPM 2 and KPM 4.

A range of supply and demand training indicators are used in national and State VET planning and region-industry planning. There appears to be limited formal assessment of the usefulness and accuracy of the indicators used in developing successive plans. The processes and indicators used for VET performance measurement and evaluation tend to follow somewhat different tracks to those used for VET forward planning.

There is evidence of persistent demand for the 'public good' of training indicators. NCVER responds to demands for training indicators with a range of national and State analyses of VET enrolment, training and student outcomes. For State VET planning purposes, States and Territories can and do supplement these analyses with their own systems data on VET students, other statistical analyses and industry survey sources.

With increasing diversification and deregulation of the training market, there are important needs and gaps for training indicators directed to regional and TAFE institute planning processes and decisions. The tools and indicators available at these levels can be improved.

Institute planning and the use of indicators for institute comparisons are issues of some sensitivity. There is continuing debate about the most useful frameworks (industry, discipline, field of study or unit of competency) for VET planning and indicators, and the extent to which the preferred array of training indicators should emphasise (industry) forecasts.

The preference among State VET planners appears to be to use industry and occupational forecasts as just one, and not necessarily the predominant, set of training indicators that contribute to VET plans and planning decisions. This seems reasonable if VET systems are taken to have both leading and following roles in developing skill solutions for industry and individuals.

The debate tends to focus on the best techniques and training indicators for VET planning, but continuity in VET organisational resources and expertise is just as important as technique in improving judgments and inferences. Resources and expertise, in NCVER and State VET agencies, matter greatly if training indicators are to make their best contribution to sustainable improvements in VET planning.

To emphasise this point, it may be noted that available and current training indicators have been used successfully to make judgments about some of the critical VET policy questions (for example, the quantity and quality of traineeships).

Over 2000-2005, these indicators offer suitable measures to assess prospects and performance in a VET system under policy and resource stresses, and flexible measures to examine VET responses to changing industry, skill and demographic trends. In particular, training indicators can be used to analyse important and topical lines of inquiry (including youth transition issues) that follow from the basic concept of KPM 2 - stocks of VET skills against desired levels.

The full report of the author's NCVER project develops summary propositions for good practice in the use of training indicators; for developing the range of training indicators; to improve the implementation of KPM 2; and to improve the dissemination of training indicators for VET planning.

Distilling the project results, the table below proposes a selection of training indicators – on the demand side, on the supply side, and comparing demand to supply – that may be used for improving assessments of changing VET demand at national, State and regional levels. The table presumes that indicators would usually need to be applied to particular industries, disciplines and fields of study.

Table 1: Selected training indicators for assessments of changing VET demand, at national, State and regional levels

Training demand indicators (for a nominal industry)	Training supply indicators (nominal industry, discipline or field of study)
Output and productivity, growth forecasts Employment, recent employment change, growth forecast Assessment of 'strategic importance' (of an industry to the economy) Industry characteristics (size and distribution of firms) Industry training needs (emerging or contracting skills demands) Replacement demand levels VET graduate employment and salaries, and trends Employer and student satisfaction, and trends Job market trends (wages and conditions) (regional) demographics	VET funding and trends Training providers (numbers, types, locations and trends) Training activity and trends • students, enrolments, hours and trends Training trends in detail • course enrolments, levels, completions and trends • Enrolments by package (Competencies), and trends • Contracts of training, completions, and trends • Module enrolments, completions and trends Shares of training market (by provider, by pathway, by level) Other supply sources (existing workers, retraining, migration) (Regional) enrolment demographics

Derived measures (comparing demand to supply)
Output or strategic importance (of an industry in the economy) vs VET funding levels
Employment levels vs VET funding levels
Employment levels vs levels of training hours
Employment levels and trends vs enrolments, contracts of training, completions
Growth and replacement needs vs training completions
Regional demographics vs regional enrolment demographics
Industry market needs vs training trends and training market shares
Suggested direction of training effort (+, 0, -)
Suggested training gaps and (purchasing) opportunities

Note: The indicators and the comparisons may be quantitative or qualitative.

References

Ashenden D and Milligan S (2000) The good universities guide to universities, TAFEs and private providers. Perth: Hobsons. www.thegoodguides.com.au/.

Australian National Training Authority (1998) A bridge to the future: Australia's national strategy for vocational education and training. Brisbane: Australian National Training Authority.

Australian National Training Authority (1999) Key performance measures for vocational education and training. Brisbane: Australian National Training Authority.

Blandy R and Freeland B (2000) Is the stock of VET skills adequate? Assessment methodologies. Adelaide: National Centre for Vocational Education Research.

Department of Employment, Workplace Relations and Small Business (2000) DEWRSB job outlook: September 2000. Canberra: DEWRSB.

Department of Training, Western Australia (1999) Western Australian State Training Strategy: Western Australian State Training Profile 1999-2001. Perth: Department of Training Western Australia.

National Centre for Vocational Education Research (1999a) Australian vocational education and training statistics 1999. Student Outcomes Survey: national report. Adelaide: National Centre for Vocational Education Research.

National Centre for Vocational Education Research (1999b) Survey of employer views on vocational education and training: national report. Adelaide: National Centre for Vocational Education Research.

Office of Training and Further Education (1999) Training and further education plan: Victoria - 2000. Melbourne: Office of Training and Further Education.

Contact details

Stephen Saunders
Email: ssaunders@act.ncver.edu.au

Student experiences of Generic Competency Learning: a case of practitioner research

Lesley Scanlon

University of Technology, Sydney

This paper explores the research experiences of a teacher researcher within the curriculum of a technical and further education (TAFE) institute in New South Wales (NSW) curriculum. It discusses the reasons for the adoption of a practitioner research position and the theoretical framework of the research. The paper also presents a model of practitioner research as a way of conceptualising the conflicting yet complementary roles of teacher and researcher. The model is presented for discussion as a work in progress.

Research background

The research on which this paper is based took place in an environment of curriculum change. The particular curriculum change, part of wider economic and education reforms since the mid-1980s, was the reconfiguration of an existing knowledge-based curriculum into a competency-based format. The widespread implementation of competency-based education has given rise to robust debate amongst academic commentators. This debate has centred on a number of key issues: the nature and purpose of education (Hager 1990; Marginson 1993); the link between economic prosperity and education (Magnusson 1990; Stevenson 1993; Williams 1994); the appropriateness of the competency approach as an educational model; and the nature of competence (Ashworth and Saxton 1990; Gonczi and Tennant 1995; Hager 1994, 1995, 1996, 1999; Norris 1991). Here I want simply to note, rather than discuss, the widespread debate engendered by the implementation of competence-based education. The implementation of this educational reform and the subsequent reconfiguration of curricula in a competency format prompted this research into the learning experiences of students within a newly reconfigured competency-based curriculum.

The curriculum is the TAFE NSW Tertiary Preparation Certificate III, which was first implemented in 1983 as a transition course to further education for adults. The course aimed to develop in students the skills and knowledge necessary for post-secondary education, to improve their confidence and self-esteem and to develop a positive attitude to lifelong learning. The curriculum aimed to do these things through knowledge-based subjects in which there was progressive assessment and final year examinations.

To gain reaccreditation in 1995, this curriculum, because of the education reforms referred to above, was reconfigured in a competency-based format and underpinned by the Mayer Key Competencies. In the new Course Manual (1995, p 13) the course was described as both a competency-based general and vocational education course, which aimed to develop key and related competencies within the context of subject content areas. Major changes to teaching and learning resulted from specific changes to the curriculum. These changes included: subjects previously of twelve months duration became six month modules; some traditional subjects disappeared or were replaced by interdisciplinary modules; many modules seemed almost knowledge-free, with the disappearance of core and elective knowledge; learning was described through module purpose statements, learning outcomes and assessment criteria; and examinations largely disappeared and were replaced or supplemented by the verification of student assessments by a panel composed of module teachers from across NSW.

As a result of these imposed changes, many teachers and students experienced what Esland (1971, p 97) calls 'the vertigo of a paradigm break-up'; the disintegration of a taken-for-granted world. The new curriculum emphasised the role of the teacher as a facilitator of learning rather than as a subject expert, and the role of the student as an active participant in the learning process rather than as a passive receiver of knowledge. It is the learning experiences of students within this new curriculum that is the focus for my research. My challenge as a teacher and a researcher within this curriculum was to identify and adopt a theoretical and methodological perspective that would enable me to directly access these learning experiences.

Theoretical and methodological framework

In general, the adoption of a particular research perspective for a practitioner researcher is, I suggest, dependent on a number of factors which include: the nature and purpose of the research; the experiences of the researcher within their practice; the practitioner's conceptualisation of being in the world; and pragmatic considerations, such as time and access. It was a consideration of these factors that led me to adopt an eclectic Symbolic Interactionist theoretical framework along with its methodology of participant observation. This theoretical framework, grounded in the work of Herbert Mead (1934/1972), Alfred Schutz (1970, 1972; Schutz and Luckmann 1973), and Herbert Blumer (1969), focuses on the interactive and interpretive nature of human experience. This particular theoretical framework was adopted for the following reasons:

- The conceptual framework of Symbolic Interactionism, with its emphasis on interaction and interpretation, corresponds with my empirical observations and pedagogical experiences as to what constitutes successful teaching and learning.

- The rich tradition of verstehen sociology, which influenced the development of Symbolic Interactionism, provides a way of understanding human experience from the perspective of those involved.

- The methodology of participant observation, implicit in Symbolic Interactionism, emphasises intimate familiarity as a salient feature of research - and hence the subjective nature of research.

Practitioner research is a version of participant observation favoured by Symbolic Interactionism. It is the kind of research that was undertaken in the early twentieth century at the University of Chicago as a research perspective that aimed to see things through the eyes of the research participants; thus it privileged subjective accounts of experience. Interactionist research as a consequence of the systematisation of a methodological approach by Herbert Blumer (1969) focused on the interpretive, interactive essence of lived experience through the researcher getting to know people well enough to understand how they experience their worlds. If a researcher claims to capture how particular groups of people think, feel, and do things together, then the responsible thing to do is to 'go have a careful look' (Schwalbe 1993, p 347). My first experience of having a 'careful look' was a pilot study in which I interviewed students from colleges other than my own. This study highlighted for me that as an outside researcher I would never have direct access to the students' learning experiences, and hence would never gain any real understanding of the complex interactive and interpretive processes involved in these experiences. Such an understanding requires the establishment of intimate familiarity that comes from sharing student learning experiences through day-to-day contact. Intimate familiarity cannot result from interview schedules and observations in other peoples' classrooms.

The adoption of the role of teacher-researcher within one's own practice, according to one commentator, is a relatively new research concept.

> Its definition, at best, is problematic, and there are many who think it should be discounted before it ever gets started - that teachers are too involved, too close to their students, or that they cannot see the bigger picture well enough to connect their students' learning to that of other students in different settings. (Pine 1992, p 657)

It is this involvement and closeness noted by Pine that I suggest affords the teacher the best opportunity to gain the intimate familiarity required to investigate learning experiences. Pine however, suggests that resistance to teacher research from those who see educational research as best conducted by disinterested outsiders, can be overcome by the adoption of a theoretical position by the teacher researcher.

Other commentators regard the unique position of the teacher researcher as an advantage, for example, Griffiths (1985) argues that the teacher's intimate knowledge of the contextual features and events of the research site can only enhance the research process. This knowledge enables the teacher to understand the subtle links between situations and events and to better understand the implications of following particular avenues of inquiry. It is this intimate knowledge, Pine (1992) suggests, that helps the teacher researcher see and analyse events that an outsider would be unlikely to see. This intimate knowledge is what Eisner (1991, p 68) calls *connoisseurship* and is the means by which the researcher comes to know the complexities, the nuances, and subtleties of aspects of the world in which he/she has a special interest.

The intimate familiarity of teacher research requires the researcher to adopt a position on issues of objectivity and subjectivity. Adopting the role of a teacher researcher within an Interactionist tradition requires the researcher to eschew what others have variously called 'the fallacy of objectivism' (Denzin 1989) and the 'fool's gold' of objectivity (Rubin 1981). It means that the researcher must not only accept but embrace the subjectivity of this research framework. It is this subjectivity, I argue, which produces accounts of lived experience that are 'more true' (Swantz

1996) than anything gained from objective methods. This is because the researcher takes seriously the views of those researched and shares their real life situations.

The participation of others

In my research, the intimate familiarity I established through day-to-day contact with the students was enhanced by their perception of my role in their learning experiences. For the students, I was principally a teacher and a course coordinator, ie an educational expert. But I was also something else with which they could closely identify: I was a student. My student status was confirmed when I explained that one of the goals of my research was to gain a PhD. Thus, I was never a teacher-researcher to the students, but a teacher-student. This perception of my role by students, I believe, allowed me to share more intimately in their learning experiences and they to share in mine.

A key issue for all practitioner-researchers is the willingness of others to collaborate in their endeavour. What motivates others to share in the research experience? In my own research I identified five major reasons given by students for participating. Firstly, as a teacher I had, over time, been judged as trustworthy and been accepted as one of the 'good guys' who could be trusted not 'to do the dirty' with what I might find out (Deans, cited in Woods 1996, p 66). This trustworthiness I believe sprang from the strong humanistic and interactionist elements in my pedagogical practice.

As Prus (1996, p 194) comments '... people very much appreciate contact with someone who is genuinely interested in learning about, as opposed to trying to impress, them'. Secondly, many students were aware of the new curriculum structure and said that they wanted a voice - wanted to be heard, because they felt nobody listened to students. Thirdly, some students expressed curiosity about the research process, what I wanted to know and how I would ask them questions. Fourthly, as a teacher and coordinator I had already established a strong reciprocal relationship with students and participating in my research was, for many of them, a way of assisting me in my studies just as I assisted them. Fifthly, many students who took part in the research used at least part of the interview situation for counselling. The interviews provided a means for students to raise issues that might otherwise have remained dormant.

A model of practitioner research

As an Interactionist researcher, I situated my research within the college and curriculum in which I taught. However, this is not the only possible research approach for an Interactionist researcher, and others have made different choices. For example, while conducting Interactionist research as a practitioner researcher, Payne (1990, p 89) chose to conduct his research within his teaching field though not within his teaching college. His decision was based on what he saw as the potential for role conflict between being a practitioner and a researcher and the implications his research might have on the performance review and evaluation of other teachers. Lacey (in Hammersley 1993), on the other hand, ignored colleagues who advised him that he was too close to schools to do Interactionist research. Rejecting the notion of objectivity, Lacey took on the role of a fully participating teacher researcher in the early stages of his research in order to build up what he called a 'fund of goodwill'. However, in the latter stages of his research he adopted the role of total observer. Throughout my research I adopted the role of a fully participating teacher researcher.

My engagement in practitioner research has led me to critically reflect on my position within the research site as I constantly reviewed my different roles. My roles as teacher and course coordinator were closely related. As a teacher I was involved in student learning within specific curriculum areas, while as a course coordinator I was concerned with learning across the curriculum. My role as researcher involved adopting a bird's eye view of curriculum learning from a specific theoretical perspective. During my research, questions arose concerning these roles and the relationship between the roles. What were the distinguishing features of these roles? Where did one role end and another begin? As a practitioner, could I be a real researcher? As a researcher, could I be a real practitioner? I found that the key to answering these questions was firstly to establish the key characteristics of each of these roles, and secondly to graphically represent these roles and the relationship between them. The key characteristics of my roles as well as the types of interaction and skills involved in each appear below in Figure 1.

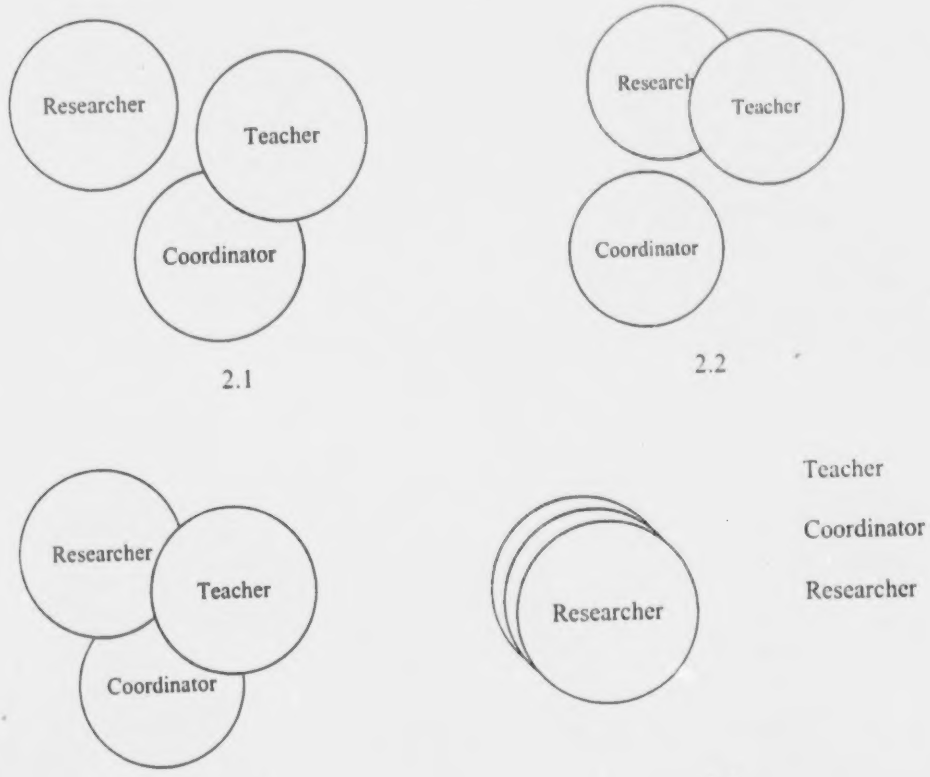
Figure 1: Teacher-researcher roles

	Teacher	**Coordinator**	**Researcher**
Pedagogy: theory	tacit theories, anecdotal evidence	tacit theories, anecdotal evidence	theoretical framework, systematised collection of evidence, public theories
Practice	professional expertise, classroom teaching and learning, assessement, emotion management, listening, questioning, gaining trust	curriculum teaching and learning, course assessment, tutorial support, emotion management, listening, questioning, gaining trust	data collection and analysis, public reporting, reflexive practice, data management, emotion management, listening, questioning, gaining trust
Administration	student attendance, assessment, enrolment, student references	enrolment, RPL, assessment, attendance, promotion, college and inter college meetings, course evaluations, student references, module completions	ethics committee, interim research reports, data management
Pastoral care	counselling	counselling	counselling
Types of interaction	lectures, seminars, workshps, library, classroom, conversations,	lectures, seminars, workshps, library, classroom, conversations,	classrooms, interviews, conversations, intimate familiarity, long term

	interviews, intimate familiarity, long term	interviews, intimate familiarity, long term	

Conceptually, the role of teacher and coordinator can be seen as occupying different communities of practice to that of the researcher. The teacher coordinator operates within a community of practice centred on curriculum and classroom-based pedagogical, administrative and pastoral care activities. Moreover, interaction with students is similarly focused, both formally and informally, on the curriculum and classroom - and these interactions employ similar skills. However, the role of the researcher, whilst occupying the same research site as the other roles, inhabits a distinctive community of practice centred on the conventions of the wider educational research community. This community is principally concerned with the systematic analysis of broad educational issues. However, that being said, there are many similarities between the roles, and the role of researcher may not be as distinct as it first appears. Researching within one's own practice, I suggest, draws the roles of researcher and the roles of the practitioner closer together through an evolving dialectical relationship illustrated in Figure 2.

Figure 2: The changing relationship between roles within a research situation



2.1

2.2

2.3

2.4

I suggest that if the theoretical and methodological frameworks adopted by the researcher are congruent with the researcher's practitioner perspective, then the interaction between these roles, during the course of practice and of the research, draws the roles closer together. By saying this I am not suggesting that Figure 2 represents a lineal development by which the roles incrementally become one, though of course they may do so. Rather, I suggest that the relationship between the roles constantly changes throughout the research process. The roles may, as a result of the individual practitioner or specific research situations, become more or less aligned depending on the degree of congruence between the roles. In the case of my own research I believe that my roles became more aligned at various points throughout the research process, and that by the end of my research my roles were best represented by 2.4. In the model I am suggesting, it should be noted that the boundaries between the roles are conceptualised as permeable rather than fixed and so as one role changes, it may result in changes within the other roles. Moreover, the boundaries between the roles and the research practitioner context are also permeable, and each affects the other in a constantly changing relationship. Thus, the model represents practitioner research as evolving and constantly changing, as the roles interact with each other and with the research situation.

There are initial similarities between the roles, as already mentioned, but there are also differences, and as these differences are resolved through the interaction of roles throughout the research process, then the roles may take on even more shared characteristics. I suggest that some of the major differences between the roles of researcher and practitioner and the ways in which they move closer together are as follows:

- Teaching is traditionally a private business conducted in the privacy of the classroom, often with little opportunity for teachers to share professional knowledge. Research on the other hand is a more public business, as research is shared amongst the research community.

- It is suggested that teachers' knowledge is tacit, private, anecdotal, unsystematised knowledge, and as such, is not subject to critical examination. Thus, practice remains unproblematised. The knowledge that arises from research is, however, '... systematic inquiry made public. It is made public for criticism and utilization within a particular tradition' (Stenhouse, cited in Carr and Kemmis 1994, p 188). The anecdotal is bound to particular contexts but when theorised, has more general applicability. Thus research leads to a problematisation of practice.

- It is this problematisation of practice through research that leads to the development of reflexive practice.

Conclusion

It has been suggested that the practitioner is in a unique position within his/her own practice to adopt the role of researcher. The practitioner possesses *connoisseurship*, the intimate knowledge of practice not accessible to the outside researcher. It is this intimate knowledge which enables the practitioner to adopt a subjective research position and thus intimately share the experiences of the research participants. It has also been suggested that the adoption of the position of practitioner researcher is a way of resolving the differences between the two positions. Thus, the intimate knowledge of the practitioner informs the role of the researcher, while the theoretical and problematising functions of the researcher inform and thus expand the role of the practitioner.

References

Ashworth P D and Saxton, J (1990) On competence. Journal of Further and Higher Education, vol 14, no 2, pp 3-25.

Blumer H (1969) Symbolic interactionism: perspective and method. Englewood Cliffs, New Jersey: Prentice Hall.

Carr W and Kemmis S (1994) Becoming critical. Education, knowledge and action research. Geelong, Victoria: Deakin University Press.

Denzin N K (1989) Interpretive interactionism. Newbury Park, California: Sage.

Eisner E W (1991) The enlightened eye: qualitative inquiry and the enhancement of educational practice. New York: Macmillian.

English Humanities Training Division (1995) Tertiary preparation course manual. Sydney, New South Wales TAFE.

English Humanities Training Division (1995) English and Humanities Journal, Special Tertiary Preparation Edition. Sydney, New South Wales TAFE.

Esland G M (1971) Teaching and learning as the organization of knowledge. In M F D Young (ed) Knowledge and control. London: Collier-Macmillian.

Gonczi A and Tennant M (1994) The false war: competency based education and its critics. Presented at the Professional Curriculum Design Conference, New South Wales TAFE Commission, Sydney, 24-26 October.

Griffiths G (1985) Doubts, dilemmas and diary-keeping: some reflections on teacher-based research. In R G Burgess (ed) Issues in education research: qualitative methods. London: The Falmer Press.

Hager P (1999) The role of generic outcomes in adult education. Studies in Continuing Education, vol 21, no 1, pp 45-55.

Hager P (1996) Conceptualising the key competencies (a draft discussion paper). Sydney, University of Technology.

Hager P (1995) Competency standards - a help or a hindrance? An Australian perspective. The Vocational Aspect of Education, vol 47, no. 2, pp 141-151.

Hager P (1994) Is there a cogent philosophical argument against competency standards? Australian Journal of Education, vol 38, no 1, pp 3-18.

Hager P (1990) Vocational education/general education: a false dichotomy? Studies in Continuing Education, vol 12, no 1, pp 13-23.

Lacey C (1993) Problems of sociological fieldwork: a review of the methodology of Hightown Grammar. In M Hammersley (ed) Educational research: current issues. London: Paul Chapman.

Norris N (1991) The trouble with competence. Cambridge Journal of Education, vol 21, no 3, pp 331-341.

Magnusson K (1990) The rise of competency-based education: a deconstructionist analysis. The Journal of Educational Thought, vol 24, no 1, pp 5-13.

Marginson S (1993) Education and public policy in Australia. Melbourne: Cambridge University Press.

Mead GH (1934/1972) Mind, self and society. Chicago: University of Chicago Press.

Payne J (1990) Doing adult education research. Studies in the Education of Adults, vol 22, no 1, April, pp 77-93.

Pine N (1992) Three personal theories that suggest models for teacher research. Teachers College Record, vol 93, no 4, pp 656-672.

Prus R (1996) Symbolic interaction and ethnographic research: intersubjectivity and the study of human lived experience. Albany: State University of New York Press.

Rubin LN (1981) Sociological research: the subjective dimension. Symbolic Interaction, vol 4, no 1, pp 97-112.

Schutz A (1972) The phenomenology of the social world. London: Heinemann.

Schutz A (1970) On phenomenology and social relations. Chicago: University of Chicago Press.

Schutz A and Luckmann T (1973) The structures of the life-world. London: Heinemann.

Stevenson J (1993) Competency-based training in Australia: an analysis of assumptions. Australian and New Zealand Journal of Vocational Education, vol 1, no 1, pp 87-104.

Swantz ML (1996) A personal position paper on participatory research: personal quest for living knowledge. Qualitative Inquiry, vol 2, no 1, pp 120-136.

Williams K (1994) Vocationalism and liberal education: exploring the tensions. Journal of the Philosophy of Education, vol 28, no 1, pp 89-100.

Woods P (1996) Researching the art of teaching. Ethnography for educational US. London: Routledge.

Professional practices online: renovating past practices or building new ones?

Kaye Schofield and Bernice Melville

Research Centre for Vocational Education and Training, University of Technology, Sydney

Deb Bennet

Adelaide Institute of TAFE, South Australia

Anne Walsh

New South Wales Department of Education and Training (TAFE)

This paper arises from collaborative research undertaken with leading practitioners of vocational education and training (VET) online in TAFE South Australia (SA) during 2000.

The paper argues that using online technologies to facilitate vocational learning is not simply a matter of updating or refreshing traditional professional practice; rather, it represents and indeed requires a break with the past and the construction of a new and more complex practice.

This argument is developed by considering four aspects of professional online practice: producing new knowledge about online teaching and learning; new professional roles and practices arising from the use of online methodologies; new forms of workplace learning for VET practitioners working online; and new organisational contexts for online practice.

The research project

The primary research questions were structured to explore VET practitioner knowledge about and experiences of online learning and teaching. A subsidiary set of research questions explored the extent to which the conduct of research and professional development could be enhanced by use of the Internet. Data was gathered using a survey, structured interviews, online research events and two face-to-face workshops. The working paper arising from this research describes the preliminary findings with relation to all these questions, however this paper will concentrate on selected areas of interest only.

The project was a collaborative one, designed from the point of view that the relevance and quality of research in this embryonic field is enhanced when VET practitioners engage in research in partnership with research institutions. It also hypothesised that enabling VET practitioners to be part of a research community and to develop an orientation towards research and inquiry is itself a new form of professional development relevant to the emerging field of online education.

BEST COPY AVAILABLE

18 VET practitioners considered at the leading edge of online education in TAFE SA volunteered to join the research project. The self-nominated group comprised 13 women and 5 men aged between 30 and 58. The average age was 44.8 years. Four participants were full-time continuing employees while 14 were full-time contract employees, mostly on long-term contracts. One was an hourly-paid/ sessional teacher.

The group came from a relatively narrow range of vocational and general education areas. Ten had a teaching background in Office Administration, Business or Information Technology studies. Four had an ESL/Adult Literacy background and two came from Community Services. Library Services and Women's Education were the other backgrounds represented.

Members of the group held varying understandings of what 'online learning' was beyond the concept that it is learning facilitated by the use of the web-based technologies and resources. While all members of the group reported that they used online instructional strategies, half also reported the use of offline strategies. Most were using a combination of instructional strategies.

The nature of the group's involvement in online learning was diverse, encompassing professional development or mentoring of other staff, developing and/or delivering online modules/training packages and involvement in LearnScope projects. Other online involvement included marketing online education services nationally and internationally; developing the functional specifications for an online virtual learning environment; helpdesk and technology support; and management of online enrolments.

Because of its self-nominating nature, small size and particular context, care is needed in generalising from the experiences of this group to the wider community of VET practitioners. Nevertheless, the findings do yield some propositions worthy of testing in other contexts and with other groups.

Theme 1: Producing new knowledge about online teaching and learning

In a VET policy environment keen to accelerate the take-up of online learning, the findings from this research serve as a timely reminder that online teaching and learning is still a very new area of human endeavour and a new area for VET policy and practice. It is an area in which there are no necessary or deductive truths and where bold hypotheses have not yet been put forward and subjected to rigorous testing and criticism. There is no single body of theory which is widely accepted as informing online practice in VET, although distance education theories are widely regarded as helpful and relevant. There is a good deal of uncertainty about whether institutionalised educational knowledge about the application of educational technologies or teaching and learning is applicable to teaching and learning in a web-based environment, and therefore there is uncertainty about the extent to which this idealised knowledge could form a foundation for knowing about online teaching and learning.

The research shows one group of VET practitioners actively, if not always consciously, engaged in the process of constructing and discarding knowledge about online teaching and learning emerging from their own (often eclectic) experiences.

chambers.2

http://www.avetra.org.au/PAPERS
08/28/01 07:56 AM

Professional practices online: renovating past practices or building new ones?

Kaye Schofield and Bernice Melville

Research Centre for Vocational Education and Training, University of Technology, Sydney

Deb Bennet

Adelaide Institute of TAFE, South Australia

Anne Walsh

New South Wales Department of Education and Training (TAFE)

This paper arises from collaborative research undertaken with leading practitioners of vocational education and training (VET) online in TAFE South Australia (SA) during 2000.

The paper argues that using online technologies to facilitate vocational learning is not simply a matter of updating or refreshing traditional professional practice; rather, it represents and indeed requires a break with the past and the construction of a new and more complex practice.

This argument is developed by considering four aspects of professional online practice: producing new knowledge about online teaching and learning; new professional roles and practices arising from the use of online methodologies; new forms of workplace learning for VET practitioners working online; and new organisational contexts for online practice.

The research project

The primary research questions were structured to explore VET practitioner knowledge about and experiences of online learning and teaching. A subsidiary set of research questions explored the extent to which the conduct of research and professional development could be enhanced by use of the Internet. Data was gathered using a survey, structured interviews, online research events and two face-to-face workshops. The working paper arising from this research describes the preliminary findings with relation to all these questions, however this paper will concentrate on selected areas of interest only.

The project was a collaborative one, designed from the point of view that the relevance and quality of research in this embryonic field is enhanced when VET practitioners engage in research in partnership with research institutions. It also hypothesised that enabling VET practitioners to be part of a research community and to develop an orientation towards research and inquiry is itself a new form of professional development relevant to the emerging field of online education.

18 VET practitioners considered at the leading edge of online education in TAFE SA volunteered to join the research project. The self-nominated group comprised 13 women and 5 men aged between 30 and 58. The average age was 44.8 years. Four participants were full-time continuing employees while 14 were full-time contract employees, mostly on long-term contracts. One was an hourly-paid / sessional teacher.

The group came from a relatively narrow range of vocational and general education areas. Ten had a teaching background in Office Administration, Business or Information Technology studies. Four had an ESL/Adult Literacy background and two came from Community Services. Library Services and Women's Education were the other backgrounds represented.

Members of the group held varying understandings of what 'online learning' was beyond the concept that it is learning facilitated by the use of the web-based technologies and resources. While all members of the group reported that they used online instructional strategies, half also reported the use of offline strategies. Most were using a combination of instructional strategies.

The nature of the group's involvement in online learning was diverse, encompassing professional development or mentoring of other staff, developing and/or delivering online modules/training packages and involvement in LearnScope projects. Other online involvement included marketing online education services nationally and internationally; developing the functional specifications for an online virtual learning environment; helpdesk and technology support; and management of online enrolments.

Because of its self-nominating nature, small size and particular context, care is needed in generalising from the experiences of this group to the wider community of VET practitioners. Nevertheless, the findings do yield some propositions worthy of testing in other contexts and with other groups.

Theme 1: Producing new knowledge about online teaching and learning

In a VET policy environment keen to accelerate the take-up of online learning, the findings from this research serve as a timely reminder that online teaching and learning is still a very new area of human endeavour and a new area for VET policy and practice. It is an area in which there are no necessary or deductive truths and where bold hypotheses have not yet been put forward and subjected to rigorous testing and criticism. There is no single body of theory which is widely accepted as informing online practice in VET, although distance education theories are widely regarded as helpful and relevant. There is a good deal of uncertainty about whether institutionalised educational knowledge about the application of educational technologies or teaching and learning is applicable to teaching and learning in a web-based environment, and therefore there is uncertainty about the extent to which this idealised knowledge could form a foundation for knowing about online teaching and learning.

The research shows one group of VET practitioners actively, if not always consciously, engaged in the process of constructing and discarding knowledge about online teaching and learning emerging from their own (often eclectic) experiences.

BEST COPY AVAILABLE

To do this, they are telling the stories of their contributions, helping themselves and others to see the problems from many different points of view. They are continuously making choices based on certain presumptions, although these presumptions are not always conscious or articulated. They are creating a language with which to describe more clearly what they do, believe and value. They are sharing what they know in verbal and electronic conversations in their workplace, between workplaces and around the globe, thus helping to build common ground for action. From these practices they are establishing practical systems for the design, production and distribution of online products and services.

What they are not yet doing in any systematic or conscious way is standing back and reflecting on what inferences (if any) may be drawn from their individual and collective experiences. However, this finding must be modified to take account of the production and circulation of practitioner knowledge within statements in online learning manuals and formalised professional development activities. Nor are they yet systematically testing their interpretations of online teaching and learning (as distinct from techniques) against the interpretations of others within their own organisations or beyond.

Furthermore, the research suggests that organisational and systemic interest in or capacity to capture and manage practitioner-constructed knowledge for wider application and testing is highly variable and generally at a low level.

From the interviews it would seem that value clashes are emerging in both the implementation of online learning itself and at the intersection between educational philosophies and management philosophies about online learning. Practitioners' sense of education as a human service rather than a 'productivity' centre is causing a good deal of anxiety for some. Overall, there seems to be a growing tension between the organisational emphasis on administration, finance and class hours and the practitioners' own sense of professionalism, which is being progressively enhanced by involvement in online activities.

Theme 2: New professional roles and practice emerging from the use of online methodologies

The impact of online activities on the professional role and practice of this group of TAFE staff is not easy to distinguish sharply from the wider changes which have been wrought to the role of the TAFE teacher/lecturer. Nevertheless, the dichotomies experienced by practitioners are clear. On the one hand they are excited and challenged by their online activities, while at the same time they are feeling frustrated and pressured by lack of time, infrastructure and resources. On the one hand they have a heightened sense of professionalism deriving from their involvement in online VET, while organisational pressures seem to challenge their sense of professionalism and their professional identity.

Participants reported a general shift in their professional practice over the past five years, from an instructor role to a facilitator role; a shift not confined to or necessarily caused by teaching online. They were also experiencing a general organisational and systemic shift towards self-paced learning, and expressed reservations that this is not desirable for all learners in all instances. They felt considerable pressure to be more flexible and multi-skilled, and some reported feeling greater stress as a consequence.

Other contextual factors impacting significantly on the roles of practitioners include a stronger emphasis on budgetary restraint and income generation at lecturer level; a strong emphasis on accountability and auditing; pressure to meet deadlines and student hours targets; and the devolution of additional administrative responsibilities (formerly done at middle management level) to lecturer level. Cumulatively, this is having a negative impact on lecturers' perceptions of their professional role.

It seems that more tenuous employment conditions have impacted on their role and work in a number of significant ways. Especially troubling is the suggestion that the shift to individual contracts has caused some TAFE staff to be increasingly reluctant to speak out.

Importantly, the group also suggested that being on a contract had been a factor leading them to engage with online VET. They suggested that, as contractors, they felt a need to develop and maintain a profile and to keep a range of employment options open. This question of the non-standard nature of the group's work and the associated conditions will be further considered in the final research report.

However, for virtually all members of this group, their involvement in online activities has caused major and very positive changes in their professional role and practice, changed their perceptions of teaching and increased their sense of professional satisfaction and challenge. Satisfaction with their current jobs was high, with 10 survey respondents indicating they were very satisfied and 6 indicating they were satisfied. Most importantly, involvement in online delivery has been a very positive experience for the majority of respondents, increasing professional satisfaction for 15 of the 18 respondents.

When asked whether their first experience online had shaped their subsequent involvement, most indicated that it had prompted a fundamental shift in their professional lives. It has provided more (and welcome) work challenges, more involvement in planning the content and sequencing of teaching, more focus on the teaching process rather than the content to be 'conveyed', and more opportunities for team-based work, which they clearly valued highly.

As a result of their involvement in online learning, most participants had a positive feeling of being part of a big story beyond the confines of their own day-to-day work; of feeling that their professionalism had been extended by the challenges of online and - in most cases - acknowledged. However, a couple within the group expressed some dissatisfaction, noting that despite having acquired new skills and being recognised internationally, their institute did not recognise or utilise their skills in online learning.

Some participants expressed a degree of ambivalence about the way online teaching changes professional practice. They were troubled or frustrated by the way the online environment causes the teacher to become a learner; by the shift from being a 'knowledge-giver' to a learning facilitator; and by having to live with the feeling of not being in control. Others were concerned that they are under pressure from their managers to do everything online rather than finding an appropriate mix of face-to-face and online. In this they felt caught between competing pressure from their organisation on the one hand and from their professional need to respond to the needs of their learners on the other.

Theme 3: New forms of workplace learning for VET practitioners working online

In the process of exploring the group's ideas about and experiences of professional development, it became clear that the traditional concept of 'professional development' - with its historical overtones of formal training and instruction, of behaviour modification, change management techniques and de-contextualised learning - is not helpful in explaining the complexity of why and how this group of practitioners came to know and love online VET. Despite their own participation in formal training or professional development programs and despite the fact that many had a formal professional development function, formal training was the least valued form of learning and the least useful source of learning for this group.

The single most important factor triggering the decision of the participants to become involved in online learning was personal and professional interest. The other two factors which seem to have been significant in triggering their involvement were the availability of resources and anticipated demand from students. The least likely drivers were pressure from the institute and demand from industry.

Other factors triggering the decision to become involved in online learning activities included the support of a mentor or encouragement by a colleague; anticipation of the benefit of technology in improving delivery to students; the opportunity to improve student access; the prospect of streamlining the administration of learning; wanting to learn something new; and seeing online innovations as providing a personal career opportunity. Equally important seems to have been the chance opportunity, being ready for a change and being in the right place when an opportunity arose.

These findings are significant in the context of the national VET system, which has tended to use international competitiveness and the national interest as rallying cries to encourage organisational and individual take-up of online strategies.

Interviews sought comment on the extent to which work colleagues were involved with online learning. What emerged was a picture of a group of leading edge, enthusiastic and motivated practitioners working with each other and sharing their experiences, but struggling (at least in this early stage) to integrate online work more fully within their work environments and engage immediate work colleagues in the process. It also showed a group of practitioners still operating outside the 'mainstream' of VET practice.

Where there were a number of people involved in online activities at an institute or a particular workplace, staff felt supported, and the exchange of ideas and information was a highly creative process. However, where there was only one or two practitioners active in online VET, there was a strong sense of workplace isolation. Nevertheless, there were indications of a growing receptivity amongst currently non-involved colleagues. Convincing work colleagues to become involved was seen as very hard work; requiring patience rather than a hard sell; and requiring the development and application of multiple techniques to support and encourage colleagues rather than compel them.

When asked what professional development programs related to online learning they had participated in, almost all the group nominated both formal and informal training programs, and the majority had participated in development projects and action learning projects. Other professional development for online learning included web-based community building activities; volunteer teaching; online and physical conferences; facilitating and mentoring other staff in LearnScope projects; and being an online student.

Participants cited four main sources of their own professional learning.

Learning by doing. Participants reported that in the beginning, they had little choice but to learn by doing. Because they were leaders in the field, there was no one else to learn from - they were pioneers 'making it up as they went along'. They were also individuals with an inclination to learning through problem solving. Assigned real-life problems such as product-development projects, they simply rolled up their sleeves and did them. But this was not, of itself, sufficient to ensure appropriate learning.

Learning though work colleagues and teamwork. Supportive work colleagues and membership of a team is a key factor in learning about online VET by this group. When asked how they first learned to use information and communications technology for online learning, the source most frequently cited was work colleagues in the same discipline area. Colleagues with online learning or discipline expertise were and remain the most used source of information and advice about online learning.

Within the group, and reflecting TAFE SA priorities and strategies, mentoring is widely used to develop staff capability to work online. Different meanings are attached to the word 'mentor' by group members, with some referring to informal collegial support, while others used it in a more formal sense of structured and planned personal coaching and development. Mentoring will be considered further in the research report, but clearly it is widely accepted, practised and valued by the group as a method of developing online teaching capability.

Learning through communities of practice: The research highlighted a community of practice as a very important source of learning. Communities of practice, while intersecting with the concept of work teams and supportive work colleagues, offered wider learning possibilities unconstrained by place and time. Despite feeling locally isolated at times, when participants were asked directly whether they felt part of a community of online practitioners, the overwhelming answer was yes, although it was also clear that each participant felt they belonged to very different communities of practice.

Learning through formal off-the-job professional development: Most members of the group seemed to have little confidence in formal off-the-job professional development activities, expressing scepticism about the quality of the formal activities they had been involved in. This was not however a universally held view; for some, conferences, overseas study tours and workshops and fellowships had provided good learning opportunities.

The research suggests that the point in time that participants first became involved in online activities may influence views about formal professional development. Those who became involved more recently would have been entering the field at a time when more sophisticated and structured professional development had become available; when the experience of the first wave of innovators had been captured in the first manuals and programs. Thus the experiences of more recent online practitioners would in all probability be more positive than those who participated in first-wave professional development.

Theme 4: New organisational contexts for online practice

The design of individual jobs and the organisation of work play a critical part in opening or closing learning possibilities. Many jobs, even professional jobs, are not big enough for the people who hold them, and these are unlikely to be a source of learning. Work can be organised in ways to encourage or discourage staff creativity and learning. In this area of knowledge-in-the-making, where staff have to construct and disseminate most of the knowledge themselves, the design of their jobs and their work processes become central to the online endeavour.

The most striking thing about this group of practitioners was that their jobs were broad in scope and offered much variety and discretion. Multiple roles were the norm, with only 3 of the 18 participants describing a single role. Nearly half of the respondents had three or more roles. These roles spanned technical, instructional, content development, marketing and management roles. Eleven respondents had some form of coordination role such as program or project coordinator, or staff manager. Seven had some involvement in professional development for other staff, or a mentor role. Many had been involved in various pilot projects and 12 of the group indicated they had a major role in online education.

In terms of job design, the roles of program design, materials development and teaching may have been separated in the past, but this was generally considered undesirable. Three quarters of the participants disagreed or disagreed strongly with the statement 'In the area of online learning, design, development and teaching are really separate and distinct activities, best done by people with different skills'. This and other findings point to the need for jobs in the area of online teaching and learning to be strongly integrated and multifunctional.

Another recurring theme in participant responses was that job discretion and work freedom was important to learning how to facilitate online learning. Freedom to create, freedom of choice to participate and freedom to make mistakes were ideas consistently evoked as important factors facilitating staff learning.

Directions for 2001

During this research it soon became apparent that the concept of changing roles and practices was not sufficient to fully describe and explain the range and nature of the work experiences reported by the research participants. In particular, two central ideas emerged as the research project drew to a close. First, that designing, developing and facilitating online learning systems and programs either forces, or makes necessary, changes in work organisation and new work practices. Second, that the organisation and practice of online work is deeply influenced by, among other things, the structural and cultural characteristics of the organisation within which work is performed.

Ultimately this will have implications not only in the way organisations structure work, but also for professional development. At present, there is a heavy reliance on traditional forms of professional development as the source of teachers' learning about online teaching and learning. This research has shown that structured professional development (whether work-based or not) is not necessarily the primary source of learning for online practitioners. They are gaining skills and understandings, and creating knowledge through complex combinations of the design and scope of their work, as well as work-based and other structured developmental experiences.

In 2001 this research program will continue by focusing on two areas: the influence of job design and work organisation, and the influence of professional development, on the way VET professionals develop their online practices.

Conclusion

This paper touches on themes only and does not provide details of the findings with respect to those themes. However, it does serve to show that those we consider leading-edge online practitioners are exploring and experimenting rather than systematically constructing their experiences and knowledge. Similarly, their employing organisations are not systemically encouraging or harvesting value from these innovators. Three papers will emerge from the 2000 phase of this research program. One will deal with the method of the research, the second will concentrate on the emerging implications of the organisation of work and job design, while the third will concentrate on the apparent influence for professional development.

Contact details

Bernice Melville
Project Officer
RCVET Faculty of Education
University of Technology, Sydney
Broadway 2007
Ph: +61 2 9514 3714
Fax: +61 2 9514 3737
Email: Bernice.Melville@uts.edu.au

Kaye Schofield
Director
Kaye Schofield and Associates P/L
78 Windsor Street
Paddington, New South Wales 2021
Ph: +61 2 9363 0581

Fax: +61 2 9327 1167
Email: schofiel@ozemail.com.au

VET-in-School for Indigenous students: success through 'cultural fit'

R G (Jerry) Schwab

Commonwealth Department of Employment, Education, Training and Youth Affairs and Centre for Aboriginal Economic Policy Research, The Australian National University

Research shows a persistent and troubling drop in retention as Indigenous students move toward the post-compulsory years, and a relative over-representation of Indigenous students in vocationally oriented school courses. While some have expressed concern at what appears to be a lack of engagement with academic courses, there is no doubt that many young Indigenous people are purposefully pursuing the practical, hands-on learning VET-in-School courses can provide.

Typically, vocational subjects are either delivered in school by teachers who have gained the necessary accreditation to teach those subjects or, when that's not possible, students leave school early and enrol in technical and further education (TAFE). Both of these approaches can be successful, but they also present significant challenges to the many Indigenous students who are alienated from school and yet lack the confidence or maturity to venture out into the world of TAFE. This paper reports on recent research into the success of two innovative yet very different approaches to the delivery of VET-in-School, one focused on hospitality and tourism and the other on health care. These programs have been successful because they stretch the boundaries of VET-in-School and ensure a close cultural fit between course content and the realities of local employment opportunities.

Research shows a persistent and troubling drop in retention as Indigenous students move toward the post-compulsory years of schooling (Long et al 1999; Schwab 1999). At the same time, Indigenous students are over-represented in vocationally oriented school courses (Ainley et al 1994; Gray et al 2000). While some have expressed concern at what appears to be a lack of engagement with academic courses, there is no doubt that many young Indigenous people are purposefully pursuing the practical, hands-on learning VET-in-School courses can provide (Groome and Hamilton 1995; Robinson and Hughes 1999; Schwab 1998; Teasdale and Teasdale 1996).

Typically, vocational subjects are either delivered in school by teachers who have gained the necessary accreditation to teach those subjects or, when that is not possible, students leave school early and enrol in TAFE. Both of these approaches can be successful, but they also present significant challenges to many Indigenous students who are alienated from school and lack the confidence or maturity to venture out into the world of TAFE. In addition, while vocational education is increasingly popular with Indigenous students, not all forms provide the appropriate cultural 'fit'. While vocational education and training (VET) may be a viable alternative for some students who have not experienced success in mainstream academic programs, finding a vocational option that fits within the local cultural

BEST COPY AVAILABLE

context and aligns with the interests and needs of these students is a significant challenge.

This paper is derived from recent research into the success of two innovative yet very different approaches to the delivery of VET-in-School; one focused on health care (Booroongen Djugun College in Kempsey) and the other on hospitality and tourism (St Mary's College in Broome). Part of a larger project on post-compulsory success among Indigenous young people undertaken as part of a Department of Education, Training and Youth Affairs (DETYA) Research Fellowship, the sites for the two case studies presented below were selected after broad ranging consultation with a variety of stakeholders. The sites were identified with advice from DETYA officers in Canberra and in various State and Territory offices. In addition, recommendations were made by various State and Territory education department officers and advice was provided by Indigenous consultative bodies across the country.

The programs discussed below were identified as exceptional in terms of engaging students or in developing programs to enhance Indigenous senior secondary (or equivalent) outcomes. Data were collected through participant observation and interviews with students, teachers, parents, community members and education administrators. In addition, various institutional documents were collected and analysed. Five days were spent in each site, with additional follow-up information collected after the completion of fieldwork. The case studies are intended to highlight the personal, school and community factors associated with successful post-compulsory outcomes for young Indigenous people. The programs described below have been successful because they stretch the boundaries of VET-in-School and ensure a close cultural fit between course delivery, content, student aspirations and the realities of local employment opportunities.

Booroongen Djugun College

Kempsey is located on the Mid-North Coast of New South Wales, one of the state's fastest growing non-metropolitan regions. Situated in the Macleay River valley, it is roughly half-way between Sydney and Brisbane and is the traditional country of the *Dunghutti* and *Gumaynggirr* people. The town population is close to 10,000 and Indigenous people comprise about 14% of the total population. The Macleay Valley is often described as economically depressed, and Indigenous unemployment is about 39%. Developing marketable skills is a challenge in any community, but this is particularly important in a town like Kempsey where jobs are few.

Booroongen Djugun College was established in 1994 as an independent adult education institution focused on the needs of Indigenous people in the region. The first accredited courses developed and offered by the college were Certificates in Community Care Nursing and Community Care Ancillary Services. These courses were developed in response to Indigenous community interests and desires to attend to the social and physical needs of elderly Indigenous people in the region. Through these courses, a pool of qualified graduates were available to staff the Booroongen Djugun Aged Care Facility when it opened in 1997; the College established its own facilities on the same grounds that same year. The Aged Care Facility is a first class residential care operation providing accommodation for 60 individuals. Constructed of rammed earth and designed to embrace and reflect Aboriginal totems of fire, water, earth and sun, the facility runs at full capacity with a long waiting list and 60 staff members. With a lengthy list of commendations and awards, the facility is setting standards for aged care in the region.

The College aims to provide practical training for individuals that will lead not only to employment but also assist with developing a career. A core assumption underpinning Booroongen Djugun programs is that the College is a community institution and as such should provide intellectual and practical skills for social action; the College is a means to individual and community empowerment. In this sense, the College sees itself as an instrument of social change, providing skills for personal and community development. Indigenous traditions and customs are married with sound pedagogy to enable learning that fits comfortably with the cultural backgrounds of Indigenous students, many of whom have never felt totally at ease with mainstream education. Course modules are structured and delivered to address what staff refer to as 'Aboriginal learning styles', and theory-based lectures are complemented by hands-on, observation-based learning. Students work through modules that emphasise the practical side of knowledge necessary for particular tasks, delivered through lectures and audiovisual presentations and reinforced through discussion and role-plays.

Health care studies

The VET-in-School program comprises three different levels of health care studies: non-vocational health care 'taster' courses for year 9 students; pre-vocational studies in community care for year 10 students; and full vocational courses in nursing and aged care for students in years 11 and 12. All are approved and accredited by the New South Wales Board of Studies and all lead to AQF Certificates.

Participating high school students in the Macleay Valley attend classes at Booroongen Djugun College one day a week. The morning involves a range of activities including lectures, audio/visual presentations, demonstrations and completion of study modules. The afternoon session is conducted in the Aged Care Facility next door, where students have the opportunity to practice what they have learned under the guidance of both their teachers and qualified Facility staff; the practical experience students gain is then discussed and re-examined in the classroom. This cycle of instruction, practice and reflection is referred to by Booroongen Djugun staff as 'circular learning' and is one of the key learning strategies offered to students.

The content of the courses is carefully structured to include all the necessary curriculum to meet accreditation standards. For example, students study human physiology and anatomy but they also learn a range of practical skills such as shaving a patient who is unable to shave himself, lifting a bedridden person, and assisting with meals. In addition, there is a particular emphasis on problem solving and communication to enable students to work both independently and with other staff in health care settings. Early modules of study lead to a First Aid qualification and Occupational Health and Safety issues and practices are threaded through all the course materials and hands-on training sessions. All the study modules emphasise literacy and numeracy skills, yet there is an explicit acknowledgement that Aboriginal English, spoken by many of the College's students, is respected as a functional form of English communication. Study is structured by course modules but also includes self-paced learning components, which allow students to work through and review materials at a rate that best suits their needs and particular circumstances.

In lectures, written course materials and 'on the ground' work placements, there is an explicit emphasis on the value and importance of Indigenous culture and identity, reaffirmed by the involvement of Indigenous staff, local Elders and community leaders. While the course emphasises the fundamentals of caring for patients, teachers never lose sight of the fact that the College is an Aboriginal institution. In addition, an explicit valuing of multiculturalism underpins all training in health care. Both of these appear to be crucial ingredients in the success of the program.

Students emphasise the immediate and practical benefits of the courses. They referred to the many and varied advantages this particular style of vocational education provides in allowing them to experience the realities of a job. They appreciate the opportunity to take direct responsibility for study, the relative independence afforded them and the practical hands-on training of immediate relevance. They anticipate an easier transition to the world of work because they will have practical experience and qualifications recognised across the country. Many of the Indigenous students say that without the Booroongen Djugun program they would have left school early. They refer to teasing and racism in their home high school in contrast to a program that is 'theirs' and that validates their cultural experience as Indigenous people. This appears to have a marked effect on their desire to participate in education and training and succeed in their studies.

Outcomes

In the year 2000 there were 54 Indigenous students in years 10-12 enrolled for study in the three high schools in the Macleay Valley. Of these students, 27 (50%) were enrolled for VET-in-School studies through Booroongen Djugun. In other words, half of all the post-compulsory high school students in the Valley chose to participate in VET-in-School studies at an independent, community-controlled Aboriginal college. Of those students enrolled in 1999, over 90% of the Macleay Valley students returned to the College to continue their study in 2000. The overall completion rate for these students was 77%. That over three out of four students in this age cohort completed these studies is remarkable by any measure. Overall, enrolments of Indigenous students at the College in the age group 15-19 grew from 29 to 43 between 1998 and 1999. These students accounted for 26% of all College students in 1998 and 16% in 1999.

Though the College has been unable to track the employment outcomes for graduating students, aged care is a growth industry in the region and virtually any student with qualifications would find jobs in the region for which they could apply. The Booroongen Djugun Nursing home, for example, has 70 staff positions and has a difficult time filling the jobs with College graduates because they are in such high demand.

St Mary's College

Located 2,200 km from Perth and 1900 km from Darwin, Broome is situated in a lush region of turquoise seas, red cliffs, palm and mango trees and low, scrubby dunes. The weather during the 'dry' season is nearly perfect, or so would say the tourists who swell the town's population by three fold during winter. The tropical 'wet' season, running from roughly October to March, is replete with hot, sticky afternoons, monsoonal rains and occasional cyclones. Broome's population is just over 10,000 people, with nearly 20% identifying themselves as Indigenous. Pearling and tourism provide the economic foundation for Broome. Over 16% of Indigenous people in Broome are unemployed, compared to about 7% of the rest of the community.

Part of the West Australian Catholic Education system, St Mary's College is a co-educational institution with both primary and secondary campuses. Overall, secondary student enrolments have increased by 39% (from 114 to 158) between 1995 and 2000. While four out of five students are Indigenous, there has been a shift occurring as increasing numbers of non-Indigenous students are choosing to enrol at St Mary's rather than the local government high school. In the year 2000, there were 27 Indigenous students in year 10, 17 in year 11 and nine in year 12.

St Mary's has initiated a range of special programs to attempt to meet the specific needs of Indigenous students, all of whom are at-risk – for various reasons – of leaving school early. The programs are linked in their ultimate aim to keep students in school and equip them to contribute to their families, communities and the rest of the nation. There are several impressive programs at St Mary's, but this paper will highlight only one: the Hospitality and Tourism Training Program.

Hospitality and Tourism Training Program

One of the critical issues for young Indigenous people in Broome is employment. Though Broome is growing, it is in fact an extremely isolated small town with a limited range of employment opportunities. A challenge for educators, beyond the provision of State required curricula, is to provide course options that fit both the interests of Indigenous students and the economic realities of the region. Intent on expanding vocational offerings, St Mary's staff did research to find what industries were growing in the region, and concluded that tourism showed the greatest promise in providing jobs to young Indigenous people in the area.

The Hospitality and Tourism Training program combines a cluster of accredited general secondary studies subjects in years 11 and 12, a selection of AQF modules related to Hospitality and Tourism and hands-on training in the workplace. At the conclusion of the course, a student is eligible for secondary graduation and will have completed a range of modules that would contribute toward the attainment of a full Certificate if the student chose to continue studies beyond school. The program was developed in collaboration with, and modules are delivered by, the Kimberley College of TAFE on St Mary's campus.

The course is structured to allow a maximum focus on the subject, so that students spend one full school day a week learning about and developing skills for employment in the Hospitality and Tourism industry. Through a combination of lectures, readings and hands-on experience, students quickly learn the realities of the industry. Learning by doing and learning by seeing the reality first hand, is behind much of the student enthusiasm for the course. Regular field visits are an important part of the course as well and students have frequent opportunities to visit local hospitality and tourism operations, including Indigenous tourism enterprises. For example, last year students visited a range of Broome's accommodation offerings, from backpacker hostel to five-star resort. They studied Indigenous fishing and mud crabbing tour operations, visited pearling facilities, and toured a cruise liner docked in Broome.

The year 12 students also travelled to Perth to study Hospitality and Tourism in another setting. In Perth they visited a range of hospitality and tourism venues including several major hotels, Qantas In-flight catering, and the Playhouse theatre. In addition, they met with staff of the WA Tourism Commission, and undertook placements at the Terrace Hotel on the Swan River where they had opportunities to observe operations in the various departments and divisions.

Outcomes

The Hospitality and Tourism program has been highly successful in a number of ways. It has attracted growing numbers of Indigenous students and engaged them at years 11 and 12 when most of their peers across the country have left school. In the year 2000 there were 15 at-risk Indigenous students enrolled and ten completed the year. The program is so attractive to students that it is a major challenge for the College to keep the academic stream alive. The program incorporates a hands-on, practical approach to learning that many Indigenous students excel at. Finally, it is closely linked to the local community and a vibrant and growing industry in which Indigenous people play a major role. In this way, the Hospitality and Tourism Program has attained a close cultural fit with the interests and aspirations of students who have first-hand experience with family and friends who have secured meaningful jobs in the local and regional industry. Students who hope to work in the field have plenty of evidence around them to indicate their aspirations are realistic and achievable; this has had a significant impact on student engagement and their willingness to remain in school.

Attendance at St Mary's has been improving in the past two or three years and the truancy rate is currently between 2-3%. In addition, it is clear from interviews with teachers and students that St Mary's students are gaining confidence and self-esteem through the Hospitality and Tourism program. These are students who are at-risk, who – according to abstract demographic profiles – would be most likely to leave school. Yet these same students are attending and participating enthusiastically in school and, perhaps most significantly, perceiving and evaluating a range of real opportunities in their future.

What seems to matter?

Enabling and facilitating the educational successes of young Indigenous people is a complex endeavour and it is difficult to identify any single ingredient that makes 'the' difference. Still, it is possible to draw some valuable lessons from the programs at St Mary's College and Booroongen Djugun. It appears there is a range of factors that have contributed to student success – all of them are interlinked and all relate to attaining a cultural fit. The notion of cultural fit revolves around the alignment of curriculum, delivery and pedagogy with local Indigenous cultural assumptions, perceptions, values and needs (Schwab 1998; Schwab 2001). For education and training to succeed, this alignment is essential.

Research has shown that this alignment can be achieved through programs and approaches that recognise Indigenous culture and values within a learning environment that preserves and reinforces Indigenous identity and provides a range of culturally appropriate mechanisms for support (Boughton and Duran 1997; Day 1994; McIntyre et al 1996; Munns et al 1996; Nakata 1993; Rigney et al 1988; Senate Employment, Workplace Relations, Small Business and Education References Committee 2000). In addition, cultural fit may be assisted by programs that grow out of and/or support Indigenous community goals (Durnan and Boughton 1999; House of Representatives Standing Committee on Employment, Education and Training 1997) and recognise that some Indigenous students appear to have different 'learning styles' that require approaches to teaching and training that differ from those traditionally used in classrooms and workplaces (Harris 1984; Hughes 1988).

While the last point is somewhat contentious among educational researchers (Nakata 1995; Nicholls et al 1996), there is no question that sensitivity to cultural difference is a key ingredient for successful programs. Distilling the lessons from the two cases presented above, there appear to be a range of factors that merit close consideration when looking for ways to facilitate success among Indigenous students in Vet-in-School programs:

Community-based education and training

The importance of education and training that is community-based was consistently referred to by students, staff and community members in both settings. Many of the young people who are enrolled to study in the two programs have had little previous success in mainstream schools, yet study in an institution recognised as an extension of the Indigenous community has in these cases had a very positive effect in encouraging - both in communities and among students - a sense of ownership of the programs. Ownership, it would appear, is closely tied to engagement and ultimately to successful outcomes.

Community relevance

Indigenous post-compulsory students are often drawn to practical fields of study which will allow them to return to their communities to work. In some cases this has to do with a lack of confidence in the workplace and a desire to work in settings that are culturally comfortable. In other cases it has to do with a deep desire to work for the betterment of one's community. The courses at Booroongen Djugun fit perfectly with these patterns and allow students to study for careers that are of immediate relevance and highly valued by the Indigenous community. Equally important, the curriculum and course structure in College courses arise out of the needs identified by the local community. Similarly, the courses at St Mary's College link to an industry local Aboriginal people value and already feel connected to. Aboriginal people are employed throughout the region in the industry and there are many examples of Aboriginal cultural tourism operations already succeeding. Consequently, the Hospitaiity and Tourism program is seen as immediately relevant and of value to the wider Aboriginal community.

A commitment to Aboriginal employment

Both programs maintain that their goal is to provide students with opportunities to develop skills that will enable them to move out of the classroom and into jobs. While qualifications are highly valued, they are not a goal in and of themselves.

Employment is the ultimate goal. This orientation shapes course materials and delivery and students appear to adopt this perspective in their studies. There is nothing abstract about these programs. The focus is on jobs, and students understand and are working toward that end.

Balancing expectations from two cultures

Staff in both institutions articulate a clear approach to teaching that encourages students by acknowledging and supporting their cultural heritage and by providing course structures and materials that fit their preferred learning styles. Yet firm expectations about attendance and participation are incorporated in the programs, and students are not allowed to complete their studies without fulfilling highly specific, industry-defined requirements. In this sense, both institutions have succeeded in finding a balance between the sometimes conflicting styles and expectations of two cultures so that the desired outcome – jobs – can be obtained.

Pushing the boundaries

Booroongen Djugun and St Mary's College are remarkable in variety of ways, but they are particularly impressive in pushing boundaries as educational institutions. Both emphasise the need for hands-on learning, and as a result, students spend significant amounts of time outside the classroom learning about the workplace. Yet, moving beyond the walls of the classroom requires additional effort by teachers and additional resources to support the field study components. Both institutions are highly entrepreneurial, have built strategic partnerships with other institutions and are particularly skilled in locating and securing supplementary funding to support their programs.

Leadership and committed, competent staff

Leadership in both institutions is exceptional in finely balancing the need to be in and of the local Indigenous community – in both identifying and being responsive to community education and training needs – with the need to be independent, efficient and innovative. Both VET-in-School programs arose out of clearly identified community needs. With clear goals and broad support, they have also succeeded in drawing together competent and committed staff to assist in expanding and extending programs to meet the education and training needs of Indigenous people throughout their regions.

Conclusion

These are two examples of exemplary programs that have been successful because they stretch the boundaries of VET-in-School and ensure a close cultural fit between course delivery, content, student aspirations and the realities of local employment opportunities. They are community-based and focused on realistic employment outcomes that are considered relevant by both students and their communities. They both have strong leadership and committed staff, they are highly strategic and entrepreneurial, and yet they have found a balance between Indigenous and non-Indigenous styles and expectations. No single one of these characteristics or qualities would have been sufficient to bring about the success of these programs, yet together, they combine to achieve impressive advances in a crucially important area and offer important insights for VET-in-School programs across the nation.

References

Ainley J, Robinson L, Harvey-Beavis A, Elsworth G, Fleming M (1994) Subject choice in year 11. Canberra: Department of Employment, Education and Training.

Boughton B and Durnan D (1997) Best practice in benchmarking in Aboriginal community-controlled adult education. A project report to the Australian National Training Authority from the Federation of Independent Aboriginal Education Providers Ltd. Sydney: Federation of Independent Aboriginal Education Providers.

Day A (1994) Looking toward high school: Aboriginal students and parents make choices. In S Harris and M Malin (eds) Aboriginal kids in urban classrooms. Wentworth Falls, New South Wales: Social Science Press.

Durnan D and Boughton B (1999) Succeeding against the odds: the outcomes attained by Indigenous students in Aboriginal community-controlled adult education colleges. Leabrook, South Australia: National Centre for Vocational Education Research.

Gray M, Hunter B and Schwab R G (2000) Trends in Indigenous educational participation and attainment, 1986-96. Australian Journal of Education, vol 44, no 2, pp 101-117.

Groome H and Hamilton A (1995) Meeting the educational needs of Aboriginal adolescents. National Board of Employment, Education and Training, Commissioned Report no 35. Canberra: Australian Government Publishing Service.

Harris S (1984) Culture and learning: tradition and education in North-East Arnhem Land. Canberra Australian Institute of Aboriginal Studies.

House of Representatives Standing Committee on Employment, Education and Training (1997) Youth employment: a working solution. Canberra: Australian Government Publishing Service.

Hughes P (1988) Aboriginal culture and learning styles: a challenge for academics in higher education institutions. Armidale, New South Wales: University of New England.

Long M, Frigo T and Batten M (1999) The school to work transition of Indigenous Australians: a review of the literature and statistical analysis. Canberra: Department of Employment, Education, Training and Youth Affairs.

McIntyre J, Ardler W, Morely Warner T, Solomon N and Spindler L (1996) Culture matters. Community report: Reporting on a project to explore what factors affect the outcomes of vocational education and training for Aboriginal and Torres Strait Islander People. Sydney, New South Wales: Research Centre for Vocational Education and Training, University of Technology.

Munns G, Mootz D, and Chapman D (1996) 'I want to start again': thoughts from some Aboriginal students who are staying on at secondary school. Paper presented at the Australian Association for Research in Education Conference, Singapore.

Nakata M (1993) Culture in education: for us or them? In N Loos and T Osani (ed) Indigenous minorities and education: Australian and Japanese perspectives of their indigenous peoples, the Ainu, Aborigines and Torres Strait Islanders. Tokyo: Sanyusha.

Nakata M (1995) Cutting a better deal for Torres Strait Islanders. Aboriginal Child at School, vol 23, no 3, pp 20-27.

Nicholls C, Crowley V and Watt R (1996) Theorising Aboriginal education: surely it's time to move on? Education Australia, vol 33, pp 6-9.

Rigney D, Rigney L and Hughes P (1998) Report on Aboriginal students and the South Australian Certificate of Education (SACE). Adelaide: Senior Secondary Assessment Board of South Australia.

Robinson C and Hughes P (1999) Creating a sense of place: Indigenous peoples in vocational education and training. Leabrook, South Australia: National Centre for Vocational Education Research.

Schwab R G (1998) Dollars and sense: economic and social tensions in Indigenous education. In F Ferrier and D Anderson (ed) Different drums, one beat? Economic and social goals in education and training. Leabrook, South Australia: National Centre for Vocational Education Research.

Schwab R G (1999) Why only one in three? The complex reasons for low Indigenous school retention. Research Monograph 16. Canberra: Centre for Aboriginal Economic Policy Research, The Australian National University.

Schwab R G (2001) That school gotta recognise our policy! The appropriation of educational policy in an Australian Aboriginal community. In M Sutton and B Levinson (ed) Policy as practice: toward a comparative sociocultural analysis of educational policy. Westport, Connecticut: Ablex Publishing Corporation.

Senate Employment, Workplace Relations, Small Business and Education References Committee (2000) Katu Kalpa: Report on the inquiry into the effectiveness of education and training programs for Indigenous Australians. Canberra: Commonwealth of Australia.

Teasdale J and Teasdale R (1996) Pathways to where? Aboriginal and Torres Strait Islander participation in vocational education and training. Leabrook, South Australia: National Centre for Vocational Educational Research.

Contact details

Jerry Schwab
Email: jerry.schwab@detya.gov.au

The impact of research on decision-making by practitioners and managers

Chris Selby Smith

Department of Management, Monash University, Melbourne

Director of the Monash University-ACER Centre for the Economics of Education and Training

Does research have an impact on decision-making at the level of practitioners and managers; and, if so, through what pathways? Previous studies have shown that the relationships between research and its decision-making outcomes are almost always complex and not easily discerned. The idea of a one-to-one relationship generally has been discredited, although individual studies can have an impact. Studies have concentrated at the policy level rather than on practitioners and managers. This paper draws on a range of recent Australian studies in VET and healthcare. The second section of the paper outlines a framework for analysing the relationships between research and decision-making by practitioners and managers, distinguishing between the decision-making domain, the research domain and the linkages between them. It also discusses the definition of research; and draws a distinction between 'use' and 'influence'. Section 3 outlines the relevant studies in VET from which evidence was drawn, while Section 4 outlines the sources from which evidence was drawn for Australian healthcare. Section 5 considers the similarities and differences in the relationships between research and decision-making by practitioners and managers in the two sectors. There are five concluding comments in Section 6.

1. Introduction

In Australia and overseas, several questions have been of interest: Do research and development (R&D) affect policy or practice? If so, through what pathways? Can relationships be improved? For example, the OECD has shown considerable interest, as have North American and European commentators. In Australia, the issues have been of interest to researchers and also to decision-makers (Selby Smith et al 1998). The present paper is primarily concerned with the impact of R&D on decision-making at the practitioner level and illustrates the discussion from studies in the healthcare and vocational education and training (VET) sectors. The discussion is not intended to imply that the relationships are straightforward, since they can be complex, discursive, negotiated, continuing and iterative (and the context can also be changing).

Previous studies have shown that the relationships between R&D and its decision-making outcomes are almost always complex and not easily discerned. The idea of a one-to-one relationship between R&D and decision-making generally has been discredited, although individual studies can have an impact. Nevertheless, there is an acceptance of differences between the R&D and decision-making domains; and of the importance of linkages between them. Thus, reviewing the evidence for and where possible evaluating the extent of influence of R&D on decision-making in healthcare or VET necessitates consideration of

BEST COPY AVAILABLE

three areas: decision-making; R&D; and the linkages between them. The perspective of decision-making is adopted here, since earlier studies have indicated that the perspective from R&D can narrow the investigator's focus, overstating research's impact (the 'key hole' problem) and underestimating the complexity of decision-making.

The impact of R&D on decision-making is defined to incorporate two elements: 'use' - ie whether the R&D served a particular decision-making purpose, such as to solve a problem, or served as a weapon in political or bureaucratic conflict or improved conceptual understanding; and 'influence' - ie whether the R&D made a difference to the decision which was made. Thus, R&D can be used in decision-making even if it does not have an influence, although the counterfactual may be difficult to establish. Secondly, R&D can influence decisions **not** to act as well as decisions to act. Thirdly, even when R&D is used by decision-makers, or has influence on them, they may not explicitly recognise it.

The paper is divided into six sections, of which this brief introduction is the first. The second section considers the framework adopted for analysing the relationships between R&D and decision-making. Section 3 outlines the sources of the evidence for VET, while Section 4 discusses the sources for healthcare. Similarities and differences in the relationships between R&D and decision-making by practitioners and managers in the two sectors are considered in Section 5. There are five concluding comments in Section 6.

2. The framework for analysis

Decision-making

Ham and Hill (1993) argue that the study of decision-making should concentrate on analysing three areas: the process by which decisions are made; the distribution of power; and the assumptive worlds of key participants in the decision-making process. In terms of the *process*, Palmer and Short (1994) argue that decision-making is often characterised by a number of stages; and R&D can play a part at each stage (see also Rist 1996). For example, R&D can be used at the problem identification and agenda setting stage; in the subsequent phase of deciding on the course of action to be adopted; and at the monitoring and evaluation stage, which provides opportunities for program fine-tuning and adjustment to changing circumstances. Robinson (1998) has argued that there are a variety of decision-making processes, which can incorporate R&D very differently. For example, pragmatic decision-making characterised by no systematic consultation or research (although R&D may be used in an ad hoc way to support one stance or denigrate another) is contrasted by Robinson with other decision-making processes, including the systematic investigation of existing R&D (and even commissioning of more). Many of the decision-makers consulted during the empirical investigations identified the complex, changing and time-pressured nature of their operating environment as an important factor in not directly considering R&D evidence before taking decisions. The timeframes of research were seen to outlast those of policy-making, so that results were often 'too late'. Relatedly, there had been substantial staff turnover, reducing the impact of accumulated knowledge, skills and attitudes (Selby Smith et al 1998).

Secondly, the distribution of *power* among the key stakeholders who participate in the decision-making arrangements can affect the likelihood of R&D influencing decisions, especially if the stakeholders vary in their attitudes to R&D and its potential use in decision-making. In both healthcare and VET, decision-making can be mediated through complex structures and arrangements; for example, in TAFE institutes or teaching hospitals. Often decision-making is contested; for example, between different levels of decision-makers, between public and private providers and between professional and managerial perspectives. There is additional complexity when the distribution of power between key stakeholders changes; as it did following the election of the Howard Government in March 1996. In such a complex and dynamic environment there can be many openings for R&D to influence decision-making. Of course, the role of R&D may be overshadowed by other factors.

Thirdly, there are the *assumptive worlds* of key individuals and organisations involved in the decision-making process. The studies considered in Sections 3 and 4 suggest that there are significant differences in the assumptive worlds of key stakeholders in healthcare and VET. And in both sectors public service downsizing has reduced the role of research branches, distancing policy-makers further from R&D, managers and practitioners. There was evidence of differences in the assumptive worlds of key decision-makers, too, at the different levels of decision-making. In practice, and perhaps particularly among practitioners and managers, formal R&D-based evidence is often supplemented by local experience and knowledge.

Three other points are briefly noted. First, at the level of healthcare and VET providers there has been a considerable increase over recent years in competitive pressures accompanying regulatory reform. The case studies of individual providers, while reflecting specific factors in particular contexts, underlined the importance of a decision-making environment predisposed to give audience to R&D findings, the contributions of key individuals rather than formal structures, and the cumulative contributions to organisational effectiveness and practitioner competence from successfully applying R&D to decision-making.

Secondly, globalisation and increased international competition are leading to the closer integration of a range of policies to enhance efficiency and innovation, including in healthcare and education. Some of the main drivers of healthcare and VET policy and practice originate outside those two sectors; and in these other areas, important developments are influenced by R&D activity and knowledge accumulation. It follows that R&D not specifically directed at healthcare or education can significantly affect decision-making there. Examples include competition policies, developments in financing arrangements or human resource management approaches, and changing perspectives on the appropriate balance between producer and consumer interests. Both the healthcare and education systems require a capacity to translate relevant R&D undertaken elsewhere, from both domestic and international sources, so that it can be applied effectively in local circumstances.

Thirdly, there are indirect as well as direct links between R&D and decision-making at all levels, including decision-making by managers in provider organisations and by individual practitioners. Each stakeholder organisation uses R&D to advance its own interests, deploying a wide range of information, including R&D-based information, in their engagement with current political and policy debates. They also use R&D for communicating with constituents and for other purposes, including industrial negotiations. They seek to influence the broader research agenda. Also, the wider community's call for change rather than direct R&D evidence, can produce modifications in decision-making by provider organisations or practitioners. 'Clamour' (Postlethwaite 1984) can both initiate research and be driven by it. Here, R&D has an impact on decision-making which is indirect and mediated through the media, the judiciary, community activity, public opinion and the political process.

We suggest that researchers should have 'suitably modest' expectations about the contribution of R&D to decision-making, including by managers and practitioners, since R&D is only one of a number of sources of information available to decision-makers, and information from all sources is only one of many inputs into the decision-making process. Brown (1991), considering healthcare decision-making in the US, concluded that 'on a good day, ideas (information) may gain a hearing amid the swirl of political considerations, but it must be a very good and rare day indeed when policy-makers take their cues mainly from scientific knowledge about the state of the world they hope to change or protect'. Two-thirds of the senior decision-makers in VET who were surveyed considered that, in reaching decisions, political and strategic considerations played the greatest role, with research-based information being used in half the cases described to support a decision already taken (Selby Smith et al 1998). And Boud et al (1997) argue that, at the level of education providers and practitioners, decisions tend to be made according to past practice, perceptions of industry needs and local constraints, rather than based on research.

R&D

Research in healthcare and education is 'so diverse and includes so many approaches that we are not communicating well if we just talk about "research" with a capital "R"' (Anderson 1998). The Australian Bureau of Statistics (1993) defines research (R&D), by reference to the OECD Frascati Manual, as comprising 'creative work undertaken on a systematic basis in order to increase the stock of knowledge, including knowledge of man, culture and society, and the use of this knowledge to devise new applications'. Thus, R&D focuses on studies characterised by originality; it has investigation as a primary objective; and research shades into development and application. 'R&D' has three main outputs. First, it provides new knowledge and applies existing knowledge in new ways, including for new audiences and in new settings. A second output consists of research skills and attitudes: an approach, a way of doing things or of assessing alternative sources of information. R&D creates human capital as well as knowledge. The third output is appropriately educated people, who are critical for the effective operation of the research system and improved decision-making. Most 'impact' studies concentrate on the knowledge creation aspects of research. Since R&D involves an aspiration to truth, it precludes conclusions being reached before the evidence is examined or despite it (Weiss 1991).

The OECD and the Australian Bureau of Statistics classify R&D studies by type: basic research; strategic research; applied research; and experimental development (Australian Bureau of Statistics 1993). Research in healthcare and VET can be distributed among the four types. Three significant implications arise. First, one would expect different *levels* of impact for the different types of research. For example, R&D which specifically addresses a current problem clearly defined by users is likely to be thought 'more relevant', particularly in the short term, than research intended to expand decision-makers' conceptual understanding. Secondly, one might expect different *patterns* of impact between the types of R&D in various decision-making situations. For example, national and State level decision-makers might be expected to attach higher priority to strategic research and less to developmental activities - and the reverse for providers, because the former tend to be less concerned with detailed implementation and more with strategic questions (and conversely for managers and practitioners). Also, different patterns of R&D impact would be expected at different stages of the policy cycle. Thirdly, *perceptions* of use and influence tend to vary among types of R&D. Even when information from a research study is used or has an influence on decision-making, this may not be visible to a particular stakeholder. Note, however, that research skills and attitudes can be used in all decision-making settings (and in the research system itself).

The accumulative nature of R&D means that, while an individual study can have an impact on decision-making, this tends to be the exception not the rule. Trace-back studies suggest greater research impact, particularly from basic R&D, than forward-looking studies. Viewing research 'as a process of debate' (Klein 1990) or conceptualising a 'knowledge reservoir' (Buxton and Hanney 1997) highlights the value of an ongoing research capacity from which decision-makers can draw.

Educational research and R&D on the healthcare system employ a wide range of approaches. Since different research questions benefit from different techniques and methodologies, it is important to match the approach to the problem. When a particular disciplinary approach is adopted, this influences the problems identified, the questions posed, the techniques adopted to investigate them, the way in which results are reported and the audiences with whom researchers interact. To the extent that the issues concerning decision-makers warrant attention from more than one disciplinary perspective, researchers require not only competence in their discipline, but other skills and personal characteristics to enable them to collaborate effectively.

R&D is carried out in various locations. Indeed, it can be argued that anyone with relevant skills can carry out R&D and they can do it anywhere. However, there are advantages in carrying out particular types of R&D in the different locations. Each location tends to specialise in particular types of research; produce different combinations of research outputs; and attract particular types of researcher. The great majority of R&D by practitioners appears to represent the actions of individuals seeking to improve the operation of an activity with which they are involved; these studies are often relatively brief in duration and produce either no report or one which has only limited circulation. There is a balance to be struck, from the overall societal viewpoint, among the different types of research and, by implication, among the different locations.

Of course, research is not solely to provide information for decision-making, especially if the relationship is conceived as narrowly instrumental and short term (West 1997).

Linkages

The impact of R&D on decision-making is affected by the linkages between research (and researchers) and decision-making (and decision-makers). Contact between the two domains, not only at the close of a study, but also before and during its conduct, can strongly affect impact. The contacts can even establish 'multiple areas of collaboration between the two parties which transcend the impact of a single study' (Huberman 1990). Linkages between the two domains can be facilitated through particular institutional arrangements, key stakeholder organisations, other interest groups and the media, and funding arrangements, so that linkages are conceptualised better as a 'web' or 'network' (Selby Smith et al 1992). To stress the concept of linkages is to be concerned with facilitating the establishment of multiple areas of collaboration between researchers, policy-makers, managers and practitioners, given the multiple pathways through which research can influence policy and practice. Linkages can also be a means of ensuring that researchers address the 'right' questions.

The literature on the web of linkages is sparser than that on decision-making or research. Linkages have a two-fold task: to transmit information from potential users of research within the decision-making system to researchers about the R&D needed for decision-making; and to transmit to potential users information about relevant R&D which has been undertaken within the research system. One defining characteristic of linkages is information flows; of which there are many forms: formal or informal, direct or indirect, long term or immediate. Although linkages are established because one party, usually decision-makers, wants to gain access to improved information or knowledge, this presupposes that decision-makers know what they want; that researchers understand *which* decision-makers want *what* research, and *when*; and that researchers wish to respond and are able to do so. These conditions are frequently not satisfied. The web of linkages can have an international dimension. Huberman has stressed 'sustained interactivity' for achieving instrumental change.

The literature has tended to focus on linkages involving information flows, with greater recognition only recently of tacit knowledge and the movement of people. When research occurs in decision-making settings, such as at the practitioner level, the linkages between R&D and decision-making tend to be closer and there is a greater likelihood of external research also being taken into account.

Two other matters are noted. First, since there are likely to continue to be significant differences between the research and decision-making communities, there is a role for research 'brokers' to facilitate the exchange of information, skills and attitudes between R&D producers and potential users (Buxton and Hanney 1994). Secondly, the increasing tendency by decision-making organisations to outsource R&D does not remove the need to retain an integrative, translating and coordinating function within agencies. They need to be able to ask the appropriate questions, assess the evidence, and know how and when to use it.

Levels of decision-making

Three levels of decision-making were distinguished: national or State level; the level of individual healthcare or education and training providers; and practitioners (such as doctors and other health professionals or teachers). This paper focuses primarily on the latter two levels of decision-making.

3. Evidence from VET

The evidence is drawn from three main sources. First, a study was commissioned by the Australian National Training Authority Research Advisory Council in 1996 (Selby Smith et al 1998). Secondly, a two-day symposium was held in Melbourne during February 1997 as part of that project (Selby Smith 1998). Thirdly, seventeen case studies were undertaken, using a consistent methodology (Selby Smith 1999). Material is drawn from these three sources relating particularly to VET practitioners and to managers in provider institutions, using five complementary approaches.

First, there was a review of relevant literature, noting that there is no single approach to the issue of the impact of research, either generally or specifically in VET (Selby Smith et al 1998).

Secondly, a symposium was held, to identify key issues promptly and enable different perspectives and approaches to the research question to be drawn on as appropriate. Sessions considered the impact of research from users' perspectives at the State/Territory and national levels (Session 1); at the provider level (Session 2); and in terms of interactions between VET and the wider economic, political and societal systems (Session 5). Perspectives were also sought from researchers working in a range of research settings, including in VET research institutions (Session 3) and in other settings, such as private consultants, as expert advisers and in the formal inquiry process (Session 4). Similar studies have been undertaken in other areas of public policy, for example, in health and in other areas of education. Researchers from these areas reported on their findings in Session 6. Presenters from the United States and New Zealand added an international perspective. Some additional matters were raised in the final plenary session. The broad parameters of the research study, including key terms which required definition, were set out in a background paper circulated to participants prior to the symposium and on which they were invited to comment.

In the event, the symposium proved to be more fruitful than anticipated. Not only were many issues that could assist in understanding the relationships between R&D and VET decision-making identified; there were three additional outcomes. First, the symposium process was interactive, dynamic and cumulative; one of mutual learning for those prepared to put their cognitive maps in jeopardy. Secondly, the considered views and material offered by symposium participants facilitated the development of responses to the research question. Thirdly, the discussions provided insights beyond the specific questions raised by the funding body, in particular ways of improving the relationships between research and VET decision-making.

Thirdly, two quantitative studies were undertaken by members of the Research Centre on VET at the University of Technology, Sydney, who were in the research team. The first study sought to collect and analyse Australian research activity in VET 1988-1996. 1068 different significant research activities were identified as having commenced, including 205 examples of local research projects (although RCVET commented that 'the information about these was extremely mixed both in quantity and quality') and eight research programs were identified (four within universities). The second study was based on semi-structured telephone interviews with fifty VET decision-makers. The sample included major decision-makers in VET (such as senior or middle level bureaucrats in national, State or Territory VET authorities, senior managers in VET providers, and key office holders in industry organisations) and decision-makers in providing training, such as heads of department in VET providers and human resource managers or training managers within enterprises. Thirty-six percent of the sample were classed as senior decision-makers, 42% as middle-ranking and 22% as lower ranking decision-makers. The detailed results are in chapters 4 and 5 respectively of Selby Smith et al (1998).

Fourthly, case studies were conducted to explore the influence of the factors identified in the literature and in discussion at the symposium in the context of particular situations. The original nine case studies (Selby Smith et al 1998) were subsequently expanded to seventeen (Selby Smith 1999). The case studies are complementary to the study reported in the 1998 book and a consistent approach informs the different perspectives which were used. The drafts were discussed at a workshop prior to completion, and authors had the opportunity to revise their drafts in the light of discussion there, if they wished. Surveys and case studies, taken together, allow for a more complete understanding of the relationships between R&D and decision-making than either can alone. Surveys and case studies build on the advantages and tend to offset the disadvantages of each other. Many of the R&D projects examined in the case studies were initiated by users and, hence, may be thought more likely to have a subsequent impact on decision-making. However, some projects were initiated by researchers, and it is of interest whether the mode of initiation affected the subsequent impact on decision-making.

Finally, the research project included reference to overseas experience. A paper setting out preliminary findings was circulated to informed overseas commentators. Their responses, which were most helpful - and generally supportive of the analysis which had been undertaken and the conclusions reached - were incorporated into the final report.

4. Evidence from healthcare

The evidence is drawn mainly from four sources. The first source is a study of the factors influencing the effectiveness of the links between economic evaluation studies on the one hand and changes in health policy and practice on the other (Drummond et al 1991; Selby Smith et al 1994). The study was concerned with planning decisions about which facilities to provide and which programs or therapies to reimburse or fund; and clinical decisions about the care to be given to individual patients. The arguments were illustrated by reference to nine specific Australian examples: extracorporeal shockwave lithotripsy; office pathology testing; magnetic resonance imaging; CT scanning; cervical cancer screening; bone mineral assessment; automated implantable cardiac defibrillators; liver transplantation; and extracorporeal membrane oxygenation. Interestingly, it was found that, since the effects of changes often could not be predicted accurately, they needed to be monitored carefully over a period of time, with consideration given to both processes and outcomes. In general, the value of a once-only assessment was open to doubt; and the responsibility for monitoring, and remedial action as required, fell significantly at the level of healthcare managers and practitioners.

Secondly, a study of health labour force research in Australia was undertaken for the Australian Health Ministers' Advisory Council (Selby Smith et al 1992). From the viewpoint of those managing provider institutions, labour is the largest proportion of their expenditure by far, and health labour is crucial to healthcare outcomes and the processes of care. An inventory was developed of studies undertaken between 1980 and 1991 (Selby Smith et al 1992a) and an investigation was conducted concerning their use in policy, program and administrative action. The discussion is based on analysis of the inventory, six case studies and the search conference. Interestingly, there was considerable restriction on the availability of the research studies, especially by governments and health provider institutions compared to tertiary educational institutions, which suggests that the former studies contribute less than the latter to the accumulating body of knowledge. The inventory tabulations also indicated that R&D initiated independently of the expressed needs of users was less likely to be used; and that users were more likely to be aware of where R&D findings were used, and how, than outside researchers or consultants. Participants at the search conference argued that, compared to education and training, R&D in healthcare institutions and among practitioners appeared to have a higher priority, to be more scientific in orientation, to be more closely linked with users, and to be much better funded (Selby Smith et al 1992, pp 106-115).

The third source was a study of the non-specialist medical workforce in public hospitals (Gadiel et al 1997) funded by the Commonwealth Department of Health and Family Services, which offered public hospitals an opportunity to explore practical solutions to hospital shortages of generalist medical practitioners. In 1995 the program funded 21 pilot projects, each for twelve months. In 1996 a further year of funding was approved for eight projects. The total value of the program was approximately $3.5 million. The main concern of the research program was the career destiny of a group of doctors within public health systems, which included non-accredited registrars, GPs interested in establishing better linkages with hospital practice, and others - often referred to as 'career medical officers'. The strategy behind the program envisaged both an expansion of the role of GPs in healthcare institutions, specifically hospitals, and the development of a comprehensive workforce strategy for non-specialist doctors within public health systems. The program was intended to enhance service access, quality or cost effectiveness.

Given the way the research projects were organised and facilitated, the project findings tended to contribute more to the accumulating reservoir of knowledge available for other decision-makers and researchers than often occurs from R&D in workplaces. Linkages were consciously fostered between researchers and users in the workplace; and between researchers, policy-makers, practitioners and professional associations. The experience of the pilot projects particularly stressed the importance of continuing contacts, a range of activities and follow-up if linkages are to be improved on a long-term basis. Also, the valuable insights and developments which emerged through a particular project could transcend the boundaries of a single R&D study, as in the John Hunter project which created 'a number of potentially useful administrative, operational and educational resources' (Gadiel et al 1997, p 101).

The final source relates to investigations into the incidence of medical benefits fraud and overservicing under the Commonwealth Medical Benefits Schedule in the early 1980s (Commonwealth Department of Health 1982; Joint Parliamentary Committee of Public

Accounts 1982a, 1982b, 1982c; Selby Smith and Corbett 1995). Particular attention is focused here on the relationships between R&D and decision-making by practitioners. The extensive analysis and interpretation of the statistical data on medical service claims on the Commonwealth was conducted within the Federal Department and at a later stage was shared with other agencies, such as the AFP and the A-G's Department, and with the organised medical profession. R&D was involved, including each of its three attributes: improved information; research skills and attitudes; and educated people.

Broad changes in public opinion, legislative policy and bureaucratic administration provided the backdrop against which individual medical practitioners conducted their affairs. The public discussion and Parliamentary and media interest in medical benefits fraud and over-servicing influenced the overall environment in which practitioners operated and, no doubt, influenced their decision-making and practices indirectly. More directly, the Departmental negotiations with the organised medical profession, and the provision of statistical data, interpretative material and government doctor to private practice doctor consultation and education appears to have had some effect on practice patterns. Incentives were provided for practitioners. The influence of informed professional opinion on practice patterns tended to be particularly important, although financial and legal sanctions were available if required. The overall process resulted in a considerable change in the assumptive world of influential professional opinion and illustrates the importance of linkages.

5. Similarities and differences between VET and healthcare

The similarities and differences between the sectors are considered firstly for managers in healthcare and VET provider institutions, and secondly at practitioner level. In each case, the similarities are considered first and then the differences between the sectors.

1. Institutional level decision-making

At this level there are certain *similarities* between healthcare and VET in the relationships between R&D and managerial decision-making. The *policy process* has similarities, although in both sectors there are variations between institutions, eg in size, complexity, institutional autonomy, and public or private ownership. In both sectors the environment is affected by wider considerations, such as the Hilmer reforms and the changing balance between consumers and providers. In both sectors R&D is undertaken to inform decision-making and external R&D is also used, but R&D is not the only input and not necessarily the most important. Decisions can be influenced by R&D directly, but often R&D is cumulative in its impact and combines with other factors to produce change.

The *power* of stakeholders is relevant in both VET and healthcare in determining whether R&D has influence on managerial decisions. If those with power are not aware of relevant R&D or do not attach much significance to it, then their decisions are unlikely to be influenced by R&D. Power can operate directly on managerial decision-making, especially in government institutions, which dominate both healthcare and VET, and also indirectly. Within the non-government sector, the power of key stakeholders can differ between commercial organisations and those run by religious and charitable groups.

The *assumptive worlds* of key stakeholders are also important for the relationships between R&D and decision-making in both healthcare and education. To the extent that key stakeholders are open to evidence and interested in R&D, it can have audience and thus influence decision-making by managers (and conversely). The evidence shows that in many healthcare and VET institutions, managers give audience to R&D and are open to its influence on their decision-making.

Secondly, there are similarities in terms of *R&D* between healthcare and VET. Provider institutions in both sectors undertake R&D, which tends to be applied in focus, closely linked to institutional policies and practice, and to the search for competitive advantage in increasingly contestable markets. Much of it is linked to the perceived needs of users. Thus, the R&D tends to have audience and some influence, but the distinction between researchers and decision-makers becomes blurred and the research's claims to objectivity can be affected. The R&D is often relatively specific to time and place, may be commercial-in-confidence in nature and is not widely disseminated. Generally, in both healthcare and VET, R&D for managerial decision-making in provider institutions contributes little to the accumulating body of knowledge. However, R&D can contribute new and better information, research skills, attitudes and educated people to decision-making processes and outcomes in both sectors.

Thirdly, the evidence shows that *linkages* between R&D and decision-making are important if R&D is to be used and have influence in either education or healthcare. The R&D tends to be more influential if the linkages occur throughout the study, rather than solely at its conclusion. And linkages established in one R&D project can result in collaboration which transcends the impact of the single study. In both sectors the linkages can be formal or informal, direct or indirect. People-level exchanges appear to be particularly important. Linkages with students (in VET) and patients (in healthcare) are significant, as well as with providers. And indirect linkages can occur through institutional councils, advisory groups and professional associations in both sectors. More generally for the relationships between R&D and managerial decision-making specifically at provider level, mutual esteem between researchers and decision-makers, collaborative approaches and a concern to improve the operation for key stakeholders as a whole appear to be important in both sectors.

There are also significant *differences* between VET and healthcare in the relationships between R&D and decision-making at the level of managers in provider institutions. First, in *decision-making* a higher priority appears to be attached to R&D in healthcare provider institutions, especially R&D on clinical matters, than in most education and training providers. The methodology tends to be more scientific and technological, the disciplines command more general respect in the institution, and decisions can be more acceptably based on the R&D evidence. The influence of research skills and attitudes tends to be stronger and the technology of production appears to command more unified support from the professionals in healthcare than in VET. Interestingly, as health promotion and prevention come to command greater support among healthcare professionals, the contrast with education and training may become less striking.

Secondly, there tends to be a stronger *research culture* in healthcare institutions, especially in teaching hospitals. This has an effect on the research skills and attitudes of the institutional policy-makers and on their assumptive worlds. The strength of the clinical perspective carries over into the administrative processes of the institution to a degree which does not occur in most VET providers. Many clinical leaders are personally involved in healthcare administration at provider level; apply their research skills and attitudes to managerial decisions in the institution; and guard jealously the autonomy of their clinical activities.

Thirdly, at the departmental or unit level, where, in practice, much decision-making occurs in provider institutions, there are closer linkages between R&D, teaching and service activities, and management in healthcare than in VET. Since the linkages are stronger in healthcare, R&D tends to have a greater influence on decision-making.

Finally, the R&D pressure on decision-makers from outside the institution tends to be greater in healthcare than in VET. Provider institutions in both sectors are, of course, subject to external suggestions, pressure and advice on a continuing basis. But in healthcare the R&D base for it tends to be greater than in VET, mediated particularly through powerful *professional associations*. They are knowledgeable about the institution and closely linked to it, but not dependent on it. Typically they are keen to maintain and raise standards, including on the basis of research evidence.

2. Decision-making by practitioners

There are **similarities** in the relationships between R&D and decision-making when comparing healthcare and VET practitioners. The *framework* suggested in Section 2 applies at the level of practitioners. The decision-making system, the R&D system and the linkages between them are relevant to the relationships between research and action; but not in exactly the same way as at the other levels.

The decision-making *process* tends to be more integrated at the practitioner level, with less discrete stages than at the policy level. For example, there is less of a distinction between policy formulation, policy adoption and policy implementation. Also, whereas at policy level a decision once made may be difficult to reverse, at the practitioner level decision-making tends to be continuous. Thus, the timing of R&D findings is less critical for implementation at the practitioner level than at the policy or managerial levels (although not for the individual patient or student). On the other hand there are many more practitioners than policy-makers, so that targeting the relevant audience presents a greater challenge.

The distribution of *power* is important for the relationships between R&D and decision-making at practitioner level, as at the policy and managerial levels. Peer pressure and professional opinion are significant elements of power for practitioners. From one point of view practitioners are directly constrained by existing policies, inspection procedures and the like, and indirectly constrained by incentive structures, cultural expectations and established working arrangements. On the other hand, healthcare professionals, especially medical practitioners and teachers are recognised as undertaking valuable social functions and are accorded substantial autonomy to perform them. At a more general level, as social attitudes alter, so does the power which can legitimately be exercised by healthcare and education professionals in general, and individual practitioners in particular.

Practitioner decision-making is influenced by their *assumptive worlds*. The separate elements which affect the assumptive world of practitioners, such as initial disposition, the nature of the training program and the practice settings, tend to reinforce each other for a specific profession and to differentiate increasingly one group of professional practitioners from another, eg doctors from teachers, or surgeons from GPs. Each of the elements affects the assumptive worlds of practitioners and thus their decision-making, including the degree to which R&D has audience and influence.

The *R&D system* is important for decision-making in both healthcare and education. In both sectors R&D takes place in many settings, including by practitioners. While it contributes cumulatively to the individual's own practice, practitioner R&D contributes relatively little to the accumulating body of knowledge which is available to other practitioners (and researchers). It appears that, in both healthcare and VET: those who undertake R&D are also more likely to give audience to R&D undertaken elsewhere and be influenced by it; and the three attributes of R&D are each significant. Much of the R&D undertaken by practitioners is applied rather than theoretical. It tends to interact in its influence on practice with the entire array of beliefs, assumptions, interests and experiences of the practitioner. Its use tends to be instrumental, interactive, legitimative and perhaps conceptual rather than a weapon for explicit political or bureaucratic conflict.

Linkages between R&D and decision-making are important at the practitioner level in both VET and healthcare in affecting whether R&D has audience with decision-makers and influences their actions. When practitioners undertake R&D, its use is guaranteed and its influence on decision-making more likely. The developing insights are available to the practitioner throughout the R&D study and may influence decision-making outside the confines of the specific project. When practitioners undertake R&D themselves, they appear more likely to be aware of R&D undertaken elsewhere and for it to have influence on their practice. Professional associations, professional opinion and peer interactions are significant linkages for many practitioners in both education and healthcare. Joint research projects have also been shown to strengthen existing linkages between researchers and practitioners (and to assist in developing new linkages). Linkages can be indirect, since professionals are influenced by the wider society in their professional practice as in their private activities.

However, there are also **differences** between healthcare and VET in the relationships between R&D and decision-making at the practitioner level. First, it appears that R&D has a greater influence on decision-making by medical practitioners than by teachers. The difference is less marked between teachers and other healthcare practitioners. It may reflect the more scientific orientation of healthcare than education R&D, the greater community support for R&D in healthcare than in VET, and the higher prestige attaching to medical practitioners than teachers, resulting in greater autonomy for their practice. Secondly, the linkages between R&D, teaching and service provision tend to be closer in healthcare than in education. Thirdly, professional associations in healthcare, especially those for medical practitioners, are substantially more influential on practice than those in education; and they are significantly more influenced by R&D. Fourthly, healthcare practitioners, notably doctors, appear to be more sympathetic to research skills and attitudes, more open to evidence and more likely to consider it as a basis for possible changes in their practice than the generality of VET teachers; although most professionals are open to new and better information, including from R&D, if it will facilitate better service to their clients.

6. Five concluding comments

First, the evidence is that R&D does have an impact on decision-making by policy-makers and practitioners in both healthcare and education, but not in the way many people think. For example, the research enterprise is accumulative. Over time, research's main contribution may be to the 'big ideas'. A number of the 'big ideas' preoccupying senior decision-makers in recent years are grounded in research. The outputs of the R&D system also include research skills and attitudes and trained personnel (human capital). These outputs are often overlooked (they were largely ignored by 'users' at the symposia). Their absence substantially weakens decision-making.

Secondly, it was generally not possible to evaluate in any quantitative fashion the *extent* of the influence of research on decision-making. There are many different types (broadly defined) of research and these can be used in a wide range of decision-making contexts. They have varying levels of visibility to the separate groups of users and other stakeholders and affect their knowledge of the extent of research's influence. Thus, a priori, one cannot conclude which types of research are used and have influence more than others: it depends. Further, the extent of the use or influence of research cannot be determined by considering the research system alone. It depends critically on the circumstances of decision-making in a particular context and the linkages between research and decision-making in that context. The research studies demonstrated that there are many contexts and a range of (potential) uses of research in decision-making.

Thirdly, the extent to which research is used and has influence on decision-making can be *enhanced* by the actions of the stakeholders. This places responsibilities on both decision-makers and researchers. For example, decision-makers have an obligation to be engaged with the world of ideas and to develop their own human capital. They cannot expect to make good decisions without thought. Neither decision-makers nor researchers are likely to act appropriately unless the incentive structures in their work settings encourage it. Also, to the extent that a significant amount of research is now commissioned by users in both healthcare and VET, these groups' actions will influence the quality of research. For example, a strong preference by users for R&D that is short-term and instrumental can, in the longer term, weaken the research base. A weak network of effective linkages undermines the potential for research to be used in decision-making at each level and to have influence, by limiting the potential for the two-way flow of information and people. The emphasis on linkages rather than dissemination (narrowly defined) increases the mutual responsibilities of the parties.

Fourthly, the case studies brought students and workers (in VET) and patients and carers (in healthcare) into prominence as an additional set of significant decision-makers by whom R&D can be used, and on whom it can have an influence. This was a valuable addition to the framework for analysing the relationships between R&D and decision-making. It emphasises that decision-making at this level is often the result of the *relationship* between providers and users; and that R&D can be used by, and have influence with, both parties to the relationship.

Finally, the studies raised the difficult issue of the precise boundaries of R&D, especially in relation to research skills and attitudes, and at the level of practitioners and managers. An openness to evidence in making decisions, for example, can be characterised as a way of working, as well as characteristic of R&D. A number of the case studies can be seen as wrestling with how best to define the precise boundary of R&D activity. In an increasingly turbulent environment, an interest by managers and practitioners in evidence, an openness to new perspectives and a willingness to learn progressively and systematically from the experience of oneself and others is central to improving practice and performance. The studies illustrate the diverse ways in which a beneficial relationship between R&D and decision-making in healthcare or education at the managerial and practitioner levels can operate, or be frustrated.

References

Anderson D (1998) Research, decision making and action in other functional areas of government, and internationally. In C Selby Smith (ed) Research and VET decision-making: February 1997 Symposium. Monash University-ACER Centre for the Economics of Education and Training, Melbourne.

Australian Bureau of Statistics (1993) Australian standard research classification. Catalogue no 1297.0. Canberra: Australian Government Publishing Service.

Boud D, Freeland J, Hawke G, McDonald R (1997) More strategic more critical, more evaluative. In D Boud (ed) Workplace learning: current research and new agendas. Adelaide: National Centre for Vocational Education Research.

Brown L (1991) Knowledge and power: health services research as a political resource. In E Ginzberg (ed) Health services research: key to health policy. Massachusetts: Harvard University Press.

Buxton M and Hanney S (1994) Assessing payback from Department of Health Research and Development, vol 1. Uxbridge: Health Economics Research Group, Brunel University.

Buxton M and Hanney S (1994) Assessing payback from Department of Health Research and Development: second report (two volumes). Uxbridge: Health Economics Research Group, Brunel University.

Commonwealth Department of Health (1982) Submission to Joint Parliamentary Committee of Public Accounts' Inquiry into Payments under the Commonwealth Medical Benefits Schedule – Medical Fraud and Overservicing. Main report and appendices, June (mimeographed). Canberra.

Drummond M, Hailey D and Selby Smith C (1991) Maximising the impact of health technology assessment: the Australian case. In C Selby Smith (ed) Economics and health: 1991. Proceedings of the thirteenth Australian Conference of Health Economists, Monash University and National Centre for Health Program Evaluation, Victoria.

Gadiel D, Ridoutt L and Selby Smith C (1997) Non-specialist medical workforce in public hospitals – hospital pilot restructuring program final report. Sydney: Strategic Human Capital Management.

Ham C and Hill M (1993) The policy process in the modern capitalist state. Sussex: Wheatsheaf Books.

Huberman M (1990) Linkages between researchers and practitioners - a qualitative study. American Educational Research Journal, Summer, vol 27, no 2, pp 363-391.

Joint Parliamentary Committee of Public Accounts (PAC) (1982a) Transcript of Press Conference given by Chairman of PAC (Mr D Connolly) on 25 May, Canberra.

Joint Parliamentary Committee of Public Accounts (PAC) (1982b) News Release, 25 May, Canberra.

Joint Parliamentary Committee of Public Accounts (PAC) (1982c) Report 203: Progress report on Medical Benefits Fraud and Overservicing. Canberra: Australian Government Publishing Service.

Klein R (1990) Research, policy and the national health service. Journal of Health Politics, Policy and Law, vol 15, no 3, pp 501-523.

Palmer G and Short S (1994) Healthcare and public policy: an Australian analysis. Melbourne: Macmillan.

Postlethwaite T (1984) Research and policy making in education: some possible links. In D S Anderson and B J Biddle (eds) Knowledge for policy: improving education through research. London: The Falmer Press.

Rist R (1996) Information needs in the policy arena: linking educational research to the policy cycle. In: Knowledge bases for education policies. Paris: OECD.

Robinson C (1998) Research and researchers' perspectives: from the viewpoint of VET research institutions. In C Selby Smith (ed) Research and VET decision-making: February 1997 Symposium, Monash University-ACER Centre for the Economics of Education and Training, Melbourne.

Selby Smith C (ed) (1999) The impact of R&D on VET decision-making: a range of case studies. Adelaide: National Centre for Vocational Education Research.

Selby Smith C and Corbett D (1995) Parliamentary committees, public servants and due process. Australian Journal of Public Administration, vol 54, no 1, March.

Selby Smith C, Davis D, Fletcher A, Fox C, Ridoutt L and Selby Smith J (1992) National Health Labour Force Research Program (two volumes). Graduate School of Management, Monash University, Melbourne.

Selby Smith C, Davis D, Fletcher A, Fox C, Ridoutt L and Selby Smith J (1992a) Inventory of health labour force research studies in Australia (1980-1991). Canberra: Australian Government Publishing Service.

Selby Smith C, Drummond M and Hailey D (1992) Increasing the impact of health technology assessments In M K Chytil, G Durn, W van Eimeren and C D Flagle (eds) Health systems - the challenge of change. Prague: Omnipress.

Selby Smith C, Drummond M and Hailey D (1994) The role of economic appraisal in health technology assessment: the Australian case. Social Science and Medicine, vol 38, no 12, pp 1653-1662.

Selby Smith C, Hawke G, McDonald R and Selby Smith J (1998) The impact of research on VET decision-making. Adelaide: National Centre for Vocational Education Research.

Weiss C H (1991) Organisations for policy analysis. New York: Sage Publications.

Contact details

Professor C Selby Smith,
Department of Management,
Faculty of Business and Economics
PO Box 11E
Monash University
Victoria 3800
Ph: +61 3 9905 2466
Fax: +61 3 9905 5412
Email: Chris.SelbySmith@buseco.monash.edu.au

Supporting women returning to work – a European perspective

Jan Shepherd and Sue Saxby-Smith

School of Educational Studies, University of Surrey, United Kingdom

Introduction and context

This paper is based upon a two year LEONARDO[1] project, designed to address a European Commission priority of combating the exclusion of those disadvantaged in the labour market. The project involves comparative research into the effectiveness of Returner courses in enabling women to make a sustained return to paid employment. Four European countries (France, Spain, Ireland and the UK) participated in the project and one of the aims was to develop guidelines for the design, content and delivery of Returner programmes. It is these guidelines and some of the methodological and practical issues associated with conducting transnational research which constitute the focus of the paper.

Equal opportunities is a fundamental underpinning feature in the creation of European Policy, and in 1997 a number of European initiatives were launched to combat exclusion and support women wishing to return to the labour market. The European Social fund, under its 'New Opportunities for Women' programme, was the main funder of these initiatives, and Employment NOW states that,

> Women experience high rates of unemployment, account for a disproportionately large percentage of those in precarious, poorly paid or part-time employment and remain under represented in the decision-making levels in the working world.

Participation rates of women in the labour market in the four countries involved in the research show considerable variation.

Table 1: Differences in participation rates

	1989	1996
Spain	29.5%	32.2%
France	50.6%	52.3%
Ireland	33.9%	42.8%
UK	60.9%	62.3%

Source: European Labour Force Survey 1989-1996 (cited in Rubery et al 1999, p 55).

Gemmeke (1999) suggests that the rise in labour market participation is ascribed to the decrease in the birth rate, increased participation in education, and the growth of the service sector which traditionally employs women. In the UK for example, service sector employment is expected to continue to rise from 46% in 1996 to 49% in 2006 (Labour Market and Skills Trends 2000). The increase in service sector jobs and particularly the increase in the opportunities for part-time employment, which

Saunders (1997, p 13) asserts makes it 'easier to arrange work to fit in around other commitments', has encouraged female participation in the workforce. Another factor which may account for differential participation rates has been cited by Chisholm (1997). She suggests that patterns of women's working lives and the extent of state support for working mothers are shown to vary enormously across the European Community. For example, in France the practice of taking a lengthy break from paid work for child rearing is uncommon, where social policies enable women to continue paid work throughout their lives or to take breaks with guaranteed rights of return. In contrast, Irish women with children have relatively low rates of employment and social policies which locate them in the home rather than the workplace. Lack of childcare provision presents one of the major barriers for women returning to training and employment. It is cited by McGivney (1993) as a domestic constraint, in addition to the psychological constraints such as a lack of confidence and structural constraints such as lack of jobs and/or training. It is evident that if women are to be able to access training provision and participate in the labour market then these barriers must be addressed. The documented barriers/constraints informed the project aim of developing guidelines for Return to Work programmes in order that these programmes meet the needs of both women returners and employers.

The 1998 'Skill Needs in Britain' survey found that employers thought that there was a significant gap between actual and required employee skills. The most common deficiencies were computer literacy or knowledge of information technology and skills related to communication, teamworking and problem solving. The need for information technology skills is also cited by Rees (1995, p 6) in her discussion of skill shortages in the EU. She asserts that, 'the all pervasiveness of IT means that few workers will remain untouched'. Starting from the premise that these generic skills are important in terms of improving employability, the effectiveness of Return to Work programmes in developing these skills constitutes part of the evaluation process.

The needs of women returners, in relation to their access to and participation in the labour market, have been a focus for a number of other research projects in the UK (McGivney 1993; Michaels and Headlam-Wells 1995; Spencer and Taylor 1994). The data upon which their recommendations are based are derived from questionnaires and interviews with course providers and women returners. The LEONARDO research includes a similar approach, and in addition includes the perspectives of employers based in the regions where the Return to Work programmes are located. This additional perspective provides another dynamic to evaluating the effectiveness of Return to Work programmes, and informs the development of the guidelines for effective practice in women's training.

Methodology

The partners in the four countries selected a short (10-16 weeks) foundation level and a longer (6-12 months) accredited Return to Work programme for evaluation. Whilst the programmes examined differed in terms of structure and content, all included the development of the generic skills identified above. Two differences, which have however proved significant in the comparative analysis, relate to work placements and funding. In France, Spain and Ireland, work placements were an integral part of the programmes investigated; in the UK they were not. Also, the UK differs in terms of funding. The other three countries have government and EU funding, the UK programmes did not. However these programmes were not necessarily representative of practices in the four countries involved.

In order to elicit the perspectives of the returners, course providers and employers, questionnaires and interview schedules were designed collaboratively at our Transnational meetings. These meetings provided the opportunity for mutual learning which Evans (1999, p 3) says requires,

> Researchers from the national contexts to form a team which constructs the discourse from the earliest stages of the inquiry, re-interpreting research questions and objectives and their meanings in the context under investigation.

In terms of our mutual learning, it was evident that we as researchers had come to the project with different experiences of conducting research. The French and ourselves had more experience with qualitative methods, whilst the Irish and Spanish had more experience with the quantitative. This resulted in some interesting dialogues about the relative merits of the different research methods in relation to the project aims. It also resulted in the project manager having to translate back and forth in English and French!

One of these aims was to compare the experiences of women on Returner courses and we discussed the value of using both questionnaires and interviews as a means of exploring them. In-depth interviews previously used in research with women returners (Smith 1996) were found to be a valuable way of enabling women to tell their own stories. They provided the space to explore issues of importance to the women themselves without a pre-determined agenda. The approach opens up the possibility to explore areas that were perhaps not initially considered of major significance by those conducting the research, but bring a new and important dynamic to the research findings. On this point Anderson (1990, p 96) says,

> When women speak for themselves they reveal hidden realities, new experiences and new perspectives emerge … Interviews with women can explore private realms to tell us what women actually did instead of what experts thought they did or should have done.

A major issue which emerged in the interviews was the importance of confidence building, and data related to this underpinned the guidelines discussed later in the paper. Whilst we as researchers were aware of its importance, it was almost a taken-for-granted assumption and not an issue we had considered addressing directly, either in the interviews or the questionnaires. We learnt much about its significance through the research process.

In addition to the discussions on the use of interviews, designing the questionnaires raised the issue of reaching consensus on the structure and content of the questions. We agreed to produce some common core questions for comparative purposes, with the option of including questions which were specific to the needs of the programmes in the different countries. We produced two questionnaires for the returners; one to be used at the start of the programmes and one at the end. The initial questionnaire included biographical details and was used to select a sample of ten women from each programme in each country for in-depth interviews.

The common core questions for the end-of-course questionnaire related to the development of the generic skills, the work placement and intentions on completing the course. These were used as a starting point for the interviews, particularly the discussions of the women's views of the usefulness of courses in preparing them for employment. Another key area explored in the interviews was any potential barriers to returning to work. In addition, the women were tracked at three-month intervals after the courses had finished, to determine whether the skills and knowledge they had acquired had been useful to them in seeking and securing employment. Face-to-face interviews were also conducted with course providers, and a questionnaire followed up by a telephone interview with local employers.

Perspectives and guidelines

Data from the end-of-course questionnaires was analysed to determine how effective the women felt the courses had been in the developments of the identified generic skills. Discussion will be limited to the longer courses as it is these that are most pertinent to the focus of the paper. The following table provides an overview of the women's perspectives on the value of the courses in relation to skill development.

Table 2: Value of courses

	UK Women into business and management	**Spain** Management and administration	**France** Executive assistants	**Ireland** Return to work
Update skills	✔	✔	✔	✔
IT skills	✔	✔	✔	✔
Communication	✔	✔	✔	✔
Team work	✔	✖	✖	✔
Supervisory skills	✔	✔	✖	✔
Presentation skills	✔	✔	✔	✔
Knowledge of organisation/companies	✔	✔	✔	✔
Language of business	✔	✔	✔	✔
Problem solving	✔	✔	✖	✔
Job seeking skills	✔	✔	✔	✔
Placements	✖	Placement 3 months per year	2 months at the end of the course	4 weeks at end of course

In terms of skill development, the courses had included the elements identified as a necessary preparation for a return to employment, with the exception of certain skills in the French course and the lack of a work placement in the UK course. The French course 'worked very much in a school way' and did not utilise the types of teaching and learning strategies, such as groupwork and case studies, which promoted the development of team working and problem-solving skills. The lack of a work placement was a key issue in the UK course and some disappointment was expressed by the respondents that there was no attachment to the local industry,

> I'd imagined that people would come from local industry to talk about a related topic ... I don't feel there has been this relationship with local industry. It has concerned me that there isn't that sense that they are quite close to local industry.

The work placements in the other three programmes had been very positively evaluated, particularly in France where the in-company training period enabled the trainees to build their self-confidence. One of the respondents said,

> This two-month training period gives us a chance of finding ourselves once again in a company context and gaining professional experience.

The issue of confidence building featured strongly in the interviews with the UK and French returners, and it was evident that much good practice existed from which guidelines can be derived.

For example, in the UK course, the Communication and Presentation skills components were cited as being particularly useful in helping to build confidence. A trainee for example said,

> The Communication and Presentation skills were perfect for helping my confidence. At the start I didn't have confidence. I needed to rediscover the confidence that I'd lost ... Often we were given tasks to do in terms which helped us to come out of ourselves ... One part of the course was a fifteen minute presentation and at the beginning we didn't think we'd manage it but everybody did, it was wonderful.

The researcher responsible for collecting the data from the UK courses found that all of the returners mentioned the value of the course in relation to confidence building, with comments such as,

> A wonderful course. It gave me the confidence to go on to other things. Before the course my confidence was at rock bottom.
>
> The course increased my confidence. It made me appreciate how many skills I had gained through my previous work and life experience.

This finding accords with the other research on the experiences of Women Returner programmes. Rees (1992), cited by Summerlad and Sanders (1997, p 56) argues that, 'there can be no doubt about the efficiency of returner programmes in improving confidence levels'. There was one story which was particularly poignant in terms of the potential of courses to build confidence and change lives. 'Emma', a thirty-four year old, became pregnant at sixteen and left school before taking her exams. She married at seventeen and went on to have three children. She had never been in paid employment but had set up a tenants' association and was the secretary of her son's football team. Through the course she realised that she already had a range of useful skills and an aptitude for learning. She said,

> This course has been a life-changer for me. It gave me the confidence to believe in myself and to realise that I do have something valuable to offer. If it hadn't been for the course, I would never have gone into an office. I'd be doing cleaning ... I really thought that I'd messed up my life getting pregnant so young, but now I can have a career and I've got nothing stopping me.

Guidelines for good practice in relation to confidence building and skill development are already well-documented in literature (Coats 1996; McGivney 1993; Morris 1993; NIACE 1991; Thorsen 1993).

Our data corroborates with these recommendations, particularly with regard to the identification of barriers to training and the use of cooperative, shared and experiential teaching and learning strategies.

These involve the use of team building events to develop organisational, interpersonal and problem solving skills. In addition we would include fostering an awareness of 'tacit' knowledge and skills acquired through informal learning, and the provision of work placements to make the links between theory and practice.

Outcomes

Evaluation of the diversity of approaches led to the jointly agreed guidelines in good practice for programme design, however our recommendations for the design and delivery of Returner courses are based upon the experiences of a relatively small sample of women. This raises the question of their generalisability beyond the specific geographical and cultural contexts in which the data was collected. In addition, Crossley and Broadfoot (1992) make the important point that policies and practices cannot necessarily be translated intact from one culture to another.

We would argue however that one of the values of comparative investigations of women's re-entry to the labour market lie in their potential to illuminate a reality of women's lives beyond a specific cultural context. That reality relates to the commonalities we found between the experiences of the women across the four countries. These relate to the domestic and psychological constraints referred to earlier in the paper. The guidelines for good practice provide strategies to address the psychological constraints. The domestic constraints, however, require intervention at a policy level. Pillinger (1992, p 165), in her discussion of women's employment in the European Community asserts that,

> Their access to childcare, training and skilled jobs is ... constrained by policies that assume their dependence in the family, in contradiction to the economic demands for their integration.

The resulting Guidelines in Good Practice in Training and Good Practice in Companies have been produced in the languages of the research partnership – English, French and Spanish. These provide reference to effective practices encountered during the research in the European partnership of France, Ireland, Spain and UK (a summary of these guidelines follows below).

The project outcomes have a potential contribution to make to European Equal Opportunities debates and initiatives. Dissemination activities and a proposed follow-up LEONARDO project will provide opportunities to consider transferability of the findings to new contexts and to develop training materials and approaches including online learning, to support women in their return to work.

Note

[1] LEONARDO DA VINCI is a European Community Action programme which aims to promote quality and innovation in vocational training.

Good practice in training

Programme design

1. Clear identification of training needs by employers
2. Involvement of employers in design and delivery
3. Provision of work placement
4. Leads to nationally recognised qualifications
5. Flexibility of entry requirements
6. Mentorship/individual tutoring and support
7. Low fees, financial support and child care provision
8. Exit interview to analyse skills and competencies developed on course
9. Effective tracking system of past students.

Implementation

1. Individual action plans
2. Communication skills
3. ICT and e-commerce
4. Presentation skills
5. Problem solving skills
6. Job seeking/interview skills
7. Work placement - relevant to trainee and employer
8. Specific vocational skill development
9. Language skills
10. Advice, guidance and counselling
11. Mentorship/tutoring
12. Assessment strategies which challenge learners.

Training methods

1. Recognition and utilisation of existing skills and abilities
2. Fostering an awareness of 'tacit' knowledge/skills
3. Individualised job seeking techniques
4. Interactive methods
5. Group exercises – brainstorming and problem-solving
6. Role-play and oral presentation
7. Use of case studies to focus experience outwards
8. Team building.

Good practice in companies

Placement provision

1. Employers' involvement in training programmes
2. Company have clear objectives for the placement
3. Placement seen as giving value for the Company rather than the Company providing a service
4. Small payment for Trainee as allowance for expenses incurred
5. Company develops a skills profile for the Trainee and then gives them priority for future employment
6. General
7. Induction for new employees
8. Mentor/tutor support to help adaptation
9. Clear job/skills specification
10. Recruitment and selection arrangements which recognise returners' different experiences, eg design of application forms.

References

Anderson K (1990) Beginning where we are: feminist methodology in oral history. In J M Nielsen (ed) Feminist research methods. Colorado: Westview Press, pp 94-112.

Coats M (1996) Recognising good practice in women's education and training. Leicester: NIACE.

Chisholm L (1997) Getting in, climbing up and breaking through: women returners and vocational guidance and counselling. Bristol: Policy Press.

Crossley M and Broadfoot P (1992) Comparative and international research in education: scope, problems and potential. British Educational Research Journal, vol 18, no 2, pp 99-112.

DfEE (2000) Labour market and skills trends 2000. Nottingham: DfEE Publications.

European Commission (1998) Employment NOW. (ESF) Brussels.

Evans K (1999) Comparative successes or failures? Some methodological issues in conducting international comparative research in PCET. Paper presented at the British Educational Research Association Conference.

Gemmeke M (1999) Finding new ways to improve the access to technical jobs of women. Amsterdam, Regio plan OH-97.

McGivney V (1993) Women, education and training. Leicester: NIACE.

Michaels R, Headlam-Wells J and Wolfin D (1995) Professional women's re-entry into the labour market: implications for training and employment in Europe. London: Women Returners' Network.

Morris B (1993) Training and development for women. London: Library Association Publishing Ltd.

NIACE (1991) Women learning: ideas, approaches and practical support. Leicester: NIACE.

Pillinger J (1992) Feminising the market: women's pay and employment in the European community. Basingstoke: MacMillan Press Ltd.

Rees T (1992) Women and the labour market. London: Routledge.

Rees T (1995) Women and the EC training programmes: tinkering, tailoring and transforming. Bristol: Saus Publications.

Rubery J, Smith M and Fagan C (1999) Women's employment in Europe: trends and prospects. London: Routledge.

Saunders B (1997) Need it end at forty? The low down: working mothers: women returning to work now have more opportunities. The Guardian Manchester, November 10.

Smith S (1996) Uncovering key aspects of experience: the use of in-depth interviews in a study of women returners to education. In E Lyon and J Busfield (eds) Methodological imaginations. Basingstoke: Macmillan Press Ltd, pp 58-74.

Summerlad H and Sanderson P (1997) The legal labour market and the training needs of women returners in the UK. Journal of Vocational Education and Training, vol 49, no 1, pp 45-64.

Spencer L and Taylor S (1994) Participation and progress in the labour market: key issues for women. Employment Department Research Series no 35.

Thorsen A, Nichol R, Prain V (1993) Women finding ways to the world of work. Australian Journal of Adult and Community Education, vol 33, no 1, pp 49-57.

Contact details

Jan Shepherd (Project Manager)
Sue Saxby-Smith (Researcher)
School of Educational Studies
University of Surrey
Guildford, Surrey
GU2 7XH UK
Ph: 01483 879188
Fax: 01483 876191
Email: J.Shepherd@surrey.ac.uk

Racialised discourse and 'adult learning principles': some thoughts about difference and VET

Sue Shore

University of South Australia

> Living in a nation of people who decided that their world view would combine agendas for individual freedom *and* mechanisms for devastating racial oppression presents a singular landscape for a writer. (Morrison 1992, emphasis in original)

This 2001 AVETRA conference with the title *Research to reality: putting TVET research to work*, indicates the purchase binaries have on the way researchers write about educational matters. Titles like this are not uncommon for conferences, yet they are suggestive of a number of tensions inherent in educational work – the presumed separation of theory and practice, the disarticulation of thinking and working, the difference between the researched world and the real world, and the implicit claim that the real work of education occurs at the interface between educators/trainers and learners.

I begin this paper with this perspective to remind me that 'invisible' binaries are always already present in the work 'we' produce as vocational education and training (VET) researchers. My intention is not to dismiss the importance of categories, nor the very different contexts of industry and academic sites as workplaces. Rather, I want to explore how the outcomes of research might be influenced by categories that frame thinking about research and learning.

A second purpose of this paper relates to the notion of 'practice' in VET. In this paper I move away from the immediate domain of 'classrooms' to explore another form of practice that I call scholarly practice. My interest is in exploring how scholarly practice - that is, the production of knowledge about VET learning - establishes the conditions under which that learning becomes thinkable.

To ground this discussion I begin by calling on a number of terms that have a familiar ring where VET texts (policies, research reports, program statements and so on) are concerned: access for all, investing in people, equity and diversity. However, rather than starting with these terms, I want to return to the work of Toni Morrison (1992, p xiii), whose words open this paper, to ask: How does the contemporary landscape of 'individual freedom and … devastating racial oppression' shape the possibilities for access and equity in VET texts? In my view this work is important not as a reason to dismiss issues of access and equity. Rather, it is important as a way of understanding how the racialised worldviews invoked by Morrison become so tightly sutured into understandings of 'adult learning' that it has become well nigh impossible for many (White) educators to see their presence, or feel their effects on the way notions of access, equity, investment and diversity are understood.

The writing landscape invoked by Morrison provides one avenue for beginning a conversation about researchers as particular kinds of practitioners involved in producing adult learning theories. Morrison's work also provides a means of exploring the links between these ideas when one begins from the assumption that adult learning principles might not be as benign as many authors suggest.

In large part I undertake this work in the spirit of forging an indisputable link between teaching and theorising; a link that can be characterised by the term 'thinking-work'. Yet, beginning this debate is at times almost paralysing, as the conceptual tools required to think change are so bound up in existing modes and practices that an entry into the debate via 'thinking' and 'theory' rather than 'doing' and 'practice' seems to reinstantiate the very binaries I have been trying to disrupt.

Where does one start?

Dominant discourses and 'adult learning principles'

For many years now, a generic notion of 'adult learning principles' has guided work related to adult learning across many contexts and content/knowledge domains. Calls for clear writing and accessible theory are common and they coexist with demands for self-direction; transparent describable experience; reflective practice to know the self; the demand for relevance to the everyday; and a belief that knowledge is generally neutral and benign. These expectations provide templates for contemporary policy development that aims 'to instil within the Australian community and enterprises a desire to acquire [valued] skills … and to engage in lifelong learning' (Australian National Training Authority 1999, p 1). These 'adult learning principles' exemplify dominant discourses about adult learning, which claim to span context and content even though they clearly produce different effects across and within contextual and knowledge domains.

But dominant discourses also do more than this. Besides circumscribing a form of normative practice that is expected of adult education activities *-and literature about those activities* - the discourses also provide the ground on which it is possible to argue for a generic form of adult learning and make no reference to the differentiation in a learning group. These mooring points of adult learning that I have described above are constituted through discursive practices of (neutral) facilitation, (neutral) classificatory systems of knowledge, and transparent awareness of a self that bears few marks of a gendered or racialised nature; a self whose (hetero)sexuality is assumed.

I have begun the task of challenging these assumptions by suggesting that researchers pay more attention to the notion of Whiteness as a way of exploring how 'individual freedom *and* … devastating racial oppression' guide the hand that underwrites 'adult learning principles'.[1]

Understanding Whiteness: examining the specificity of the mainstream

In many educational contexts the term mainstream is used as a code word to signify what Audre Lorde has called the 'mythical norm' (Lorde 1984, p 116). However, the term mainstream has the tendency to obscure the complexity of ways in which White people live their lives, and at the same time it does not address the issue of 'unearned privilege' from which many White people benefit (McIntosh 1988).

Richard Dyer notes that many people believe that racialised lives belong to non-White people, and that White people are not raced (Dyer 1997). As a result, some discourses about adult education disguise the normative effects of Whiteness - as they claim to speak for all humanity - and it is these discourses that are more often than not exemplified by the claims of 'adult learning principles'.

Moreover, for Dyer, dominant representations of Whiteness are, in part, expressed through paradigms of embodiment that are intricately connected to Christianity. In scientific discourse, the (White) subject seeks to attain a 'position of disinterest – abstraction, distance, separation, objectivity – which creates a public sphere that is the mark of civilisation … the aim of history' (Dyer 1997, p 39). Christianity encourages the disembodied notion of the White 'subject without properties' (ibid, p 38); a subject throughout history that has, nevertheless, still needed to be visible. This disinterest is accomplished in a number of ways. The Christian separation of mind and body provides the means by which we think; 'the trope defining [White] bodies with control and [Other] bodies without' (ibid, p 18). 'Above all, the white spirit could both master and transcend the white body, while the non-white soul was a prey to the promptings and fallibilities of the body' (ibid, p 23). It is precisely this confluence of discourses which circumscribes how Whiteness comes to have particular meanings and representations; its conditions of intelligibility.

These views about Whiteness are quite different from those ideas that describe culture and race in adult education. For Dyer:

> White identity is founded on compelling paradoxes: a vivid corporeal cosmology that most values transcendence of the body; a notion of being at once a sort of race and the human race, an individual and a universal subject; a commitment to heterosexuality … a stress on the display of spirit while maintaining a position of invisibility; in short, a need to always *be everything and nothing*, literally overwhelmingly present and yet apparently absent. (ibid, p 39 – my emphasis)

It is therefore, not surprising that 'enterprise' forms such a major part of the modernist project of training/lifelong learning. Nor is it surprising that the qualities of 'enterprise' and 'leadership' have been subsumed under taken-for-granted understandings of historical progress that conflate these qualities with inherent assumptions about the destiny of Whites to rule.

For many White people (and indeed many non-White people) concerned about tackling these issues through the lenses of access, equity and diversity, the only representations of Whiteness they can conjure up are those associated with White superiority and White supremacism. Hence, as Dyer points out,

> [t]he combination of extreme whiteness with plain unwhite whiteness [i.e. people of color] means that white people can both lay claim to the spirit that aspires to the heights of humanity and yet supposedly speak and act disinterestedly as humanity's most average and unremarkable representatives. (Dyer 1997, p 223)

In this instance, extreme Whiteness becomes the 'condition of establishing whiteness as ordinary' (ibid, p 22). Hence male or female colleagues and learners who bully, harass or intimidate will rate as extreme, while liberal educators with the best of intentions are framed as 'trying' and therefore untouchable in terms of reflexively analysing 'our' practices.

These extreme understandings and representations of Whiteness are crucial to establishing parameters for ordinary, responsive Whiteness (Dyer 1997) and, in my view, the latter provide the scaffold for a wide range of contemporary social and public policy statements, curriculum documents and other VET texts. They do this in part by repeated reference to and recycling of the features that define the boundaries of 'adult learning principles'.

Making Whiteness tangible

Alice McIntyre also investigated the issue of Whiteness when she worked with preservice teachers to explore their beliefs and practices about Whiteness and its effects in school settings. Her study (McIntyre 1997) identified a number of practices that exemplify the ways in which student teachers in preservice courses blocked more comprehensive discussion of Whiteness and its effects. In her study, 'white talk' acted as a 'relay' (Bernstein 1996) for power-knowledge relations in education. McIntyre's research provides concrete examples of the ways in which

> "white talk" serves to insulate white people from examining their/our individual and collective role(s) in the perpetuation of racism. It is a result of whites talking uncritically with/to other whites, all the while, resisting critique and massaging each other's racist attitudes, beliefs, and actions. (McIntyre 1997, pp 45–46)

This 'white talk' has a visible dimension in group sessions conducted by McIntyre, including

> derailing the conversation, evading questions, dismissing counterarguments, withdrawing from the discussion, remaining silent, interrupting speakers and topics, and colluding with each other in "creating a culture of niceness" that made it very difficult to "read the white world" (ibid, p 46).

Marilyn Frye's (1983, 1992) work provides earlier examples of this, reminding me that Whiteness is not really a new research field. Concerned feminists and others have been talking about Whiteness and its effects for decades. Frye comes to terms with the seemingly fugitive nature of Whiteness, for some people at least, by returning to the field of language. In my view, this is not a bad thing, as her attempts to portray 'whiteliness' provide some concrete comparisons with gender equity, an idea that is familiar to many VET educators. In Frye's view 'whiteliness' is akin to masculinity, a contingent connection that is not dependent on a White skinned body (just as being masculine is not contingent upon the male body). In making this connection, Frye claims that issues of morality and social change are central to what she calls 'Whitely' ways of being:

> Whitely people generally consider themselves [sic] to be benevolent and good-willed, fair honest and ethical. The judge, preacher, peacemaker, martyr, socialist, professional, moral majority, liberal, radical, conservative, working men and women – nobody admits to being prejudiced, everybody has earned every cent they ever had, doesn't take sides, doesn't hate anybody, and always votes for the person they think

> best qualified for the job, regardless of the candidates race, sex, religion or national origin, maybe even regardless of their sexual preferences. (Frye 1992, p 154)

Frye uses grammar and analogies with feminism and class to address, but not reconcile, potential contradictions between representations of Whiteness and fluid conceptions of subjectivity that will, at the same time, not dissolve the power-knowledge relations of the space that is Whiteness. For Frye 'whiteliness is [not] just middle-class-ness misnamed' (ibid, p 159). This is a claim offered by many, which in my view dismisses the effects of the 'White in the I'; the stable subject of adult learning that seems to guide so many sets of principles, guidelines, suggestions for facilitation and so on.

While I am concerned to keep a focus on the fundamental organising principles that make Whiteness such a powerful system of discursive pressures, like Frye and a number of other researchers, I also think that located analyses of Whiteness must show the extent to which gender, sexuality and class become something else when 'saturated' (Spillers in Davy, 1997) with Whiteness. This is an important issue. For White people the transformations achieved through educational activism may be important. For people of colour, the change may be imperceptible given the overall effect on how they experience Whiteness. In fact, the perspectives of non-White people have been notoriously overlooked in many studies about access and equity - and it is this feature of some strands of studies about Whiteness that promises much for rewriting adult learning principles in ways that acknowledge the racialised effects on theory building.

Looking at Whiteness: 'other' perspectives

Many White people make the assumption that non-White people experience Whiteness in much the same way as 'we' White people experience it. Aileen Moreton-Robinson (1998), Jackie and Rita Huggins (1994) and Lillian Holt.(1999) point out that Indigenous Australians have been watching White people for years - as Indigenous servants, 'anthropological subjects' of research, and learners and workers in education settings. In doing so, they have learnt much about Whiteness and it is not always what 'we' imagined or desired that they would learn. bell hooks believes that many White people are unable to develop the capacity to see and know Whiteness; that Whites know nothing of those pressures and constraints that produce White subjectivities. She contends that as White people we only know how to talk about ourselves by talking about the Other. Such comments are reflected in a long-standing tradition of social inquiry that variously describes White people's ambivalence toward, lack of knowledge about - and even distaste for - our own culture.

hooks stipulates that 'looking' for/at the Other is a practice that must cease:

> I am waiting for them to stop talking about the "Other", to stop even describing how important it is to be able to speak about difference. ... Often their speech about the "Other" is a mask, an oppressive talk hiding gaps, absences, that space where our words would be if we were speaking, if there were silence, if we were there. ... Often this speech about the "Other" annihilates, erases: "No need to hear your voice when we can talk about you better than you can speak about yourself. No need to hear your voice. Only tell me about your pain. I want to know your

> story. And then I will tell it back to you in a new way. Tell it back to you in such a way that it has become mine, my own. Re-writing you, I write myself anew. I am still author, authority, I am still the coloniser, the speaking subject, and you are now at the centre of my talk." Stop. (hooks 1990, pp 150-151)

In addition Toni Morrison's writing shows that Whiteness is made through the Other, and therefore requires some understanding of how the Other is constructed through the racialised practices of production that generate (VET) texts. In recent research (Shore 2000), I work with the challenge of foregrounding the discursive practices of Whiteness and am also mindful that a category like Whiteness does not appear of its own volition. It is constituted by and through the debates and practices of otherness that are invoked by terms like access and equity; debates and practices that are paradoxically designed to address inequalities produced by the constitution of otherness.

Starting somewhere: strategies located in theories and contexts

In this paper I have noted how 'difficult' it is for some White people to see how Whiteness has an effect on the subject in/of adult education. In 1988 Peggy McIntosh published a discussion paper (which has seen many forms of publication since then: 1988, 1990, 1992) elaborating on the different forms White privilege might take. After an analysis of some 40 privileges she has noted in her own life, she eventually rejects the word 'privilege' as being woefully inadequate to describe the unearned resources which many White people accumulate. Yet she 'forgets' that her 'brutally honest' list of White privileges comes from a comparison of the White self and the *lack* or deficits she implicitly reinscribes on the Other (see Hurtado and Stewart 1997, p 305 for discussion of this point).

McIntosh's protocol for recognising Whiteness and the critique offered by Hurtado present an exemplar of how difficult it is at times to see the 'White in the I' (Shore 1997) that guides assumptions about the self. Some White writers are unaware that they write from a position that takes as its norm a White self. Other writers suggest that the Other needs to be present (that is, programs need to be designated for particular 'target groups') if the power relations of racialised lives can be examined. These writers are unable to move beyond the notion of visible otherness (non-Whiteness, for example) to see that Whiteness, too, is a form of 'difference'. And yet it would be too easy to fall back on the claims for differentiation and diversity and thereby ignore the very real economic and political differences that Whiteness makes to particular lives.

In exploring this work I am mindful that starting somewhere is not a neutral enterprise (Spivak 1993, p 58). In my view, contemporary studies about Whiteness are fraught with difficulties – not least because they require educators who would identify as 'White people' to explore and understand something that many of 'us' take for granted. Moreover, when Whiteness is viewed as a discursive 'system of pressures and constraints' (Said 1993, p 323) that frame the design of access and equity programs, then it would seem to me that more work needs to be done on the effects of these pressures and forces on what can be achieved by programs underwritten by a theoretical hand that promotes liberation and ignores the oppressive aspect of its history.

In this paper I have responded to the exhortations of recent policy documents that imaginative new ways of rethinking work, learning and training are required if industrialised countries such as the UK and Australia, to take two cases, are to make a difference to individuals and enterprises. My response, as a researcher deeply concerned about contemporary theorising in VET, has been to move away from the imperatives of lean and efficient methods of training and the discourses of productive citizens that are so common in VET policy and research. The ideas I have developed in this paper are evocative of work in other areas of education, which suggest connections between the repetitious recycling of seemingly neutral principles about adult learning and the ongoing continuities and solidarities of White power imbricated in wider practices of colonialism and imperialism.

In my view the ideas presented in this paper are unlikely to find their way into core training programs as an alternative to 'adult learning principles'. However, they do provide one starting point in the development of a dialogue about 'social change' that might help to explain why access and equity strategies have limited potential for structural and pedagogical change. And they offer one means of examining how VET researchers might write *into* adult education a more explicit examination of Whiteness and its effects.

Note

1. In other work (Shore 2000) I have noted the importance of examining Whiteness in contextual and contingent ways, of learning to see variety in context and, at the same time, of mapping the recurring effects of Whiteness across contexts in ways that render visible - to White people at least - a sense of the effects described by people who experience this Whiteness in bureaucratic systems. These 'Whitefella systems' also have masculinist features that differentially alienate many White people as well; thus Whiteness is not always 'privileged'. Nevertheless, White people operating in these settings often benefit from the repertoires and practices present in these systems (Frankenberg 1993). My more extensive research attempts to deal with this problem of recognising Whiteness, yet not reifying it as some kind of static identity category; a common feature of texts exploring identity from the perspective of 'adult learning principles'. Hence both men and women take up Whiteness and its diverse masculinist versions in Australian institutions, at the same time as they are also contested, adapted and differentially experienced by employees.

References

Australian National Training Authority (1999) The national marketing strategy. Brisbane: Australian National Training Authority. http://www/anta/gov/au/lifelong/STRATEGY/Default.asp.

Bernstein B (1996) Pedagogy, symbolic control and identity. Theory, research, critique. London: Taylor and Francis.

Davy K (1997) Outing whiteness: a feminist lesbian project. In M Hill (ed) Whiteness. A critical reader. New York: New York University Press, pp 204-225.

Dyer R (1997) White. London and New York: Routledge.

Frankenberg R (1993) The social construction of whiteness. White women, race matters. London and New York: Routledge.

Frye M (1983) On being white: thinking toward a feminist understanding of race and race supremacy. In M Frye (ed) The politics of reality: essays in feminist theory. Trumansburg, New York: Crossing Press, pp 110-127.

Frye M (1992) White woman feminist, 1983-1992. Willful virgin: essays in feminism, 1976-1992. Freedom, CA: Crossing Press, pp 146-169.

Holt L (1999). Pssst ... I wannabe White. In B McKay (ed) Unmasking whiteness: race relations and reconciliation. Nathan, The Queensland Studies Centre, Griffith University, pp 39-44.

hooks b (1990) Yearning. Race, gender, and cultural politics. Boston, Massachusetts: South End Press.

Huggins R and Huggins J (1994) Auntie Rita. Canberra: Aboriginal Studies Press for the Australian Institute of Aboriginal Studies.

Hurtado A and Stewart A J (1997) Through the looking glass: implications of studying whiteness for feminist methods. In M Fine, L Weis, L C Powell and L M Wong (eds) Off white: readings on race, power and society. London and New York: Routledge, pp 297-311.

McIntosh P (1988) White privilege and male privilege: a personal account of coming to see correspondences through work in women's studies. Working paper no 189, Wellesley MA 02181, Wellesley College Centre for Research on Women.

McIntosh P (1990) White privilege: unpacking the invisible knapsack. Independent School, winter, pp 31-36.

McIntosh P (1992) White privilege and male privilege: a personal account of coming to see correspondences through work in Women's Studies. In M L Andersen and P Collins (eds) Race, class and gender. Belmont, CA: Wadsworth, pp 70-81.

McIntyre A (1997) Making meaning of whiteness: exploring racial identity with white teachers. Albany: State University of New York Press.

Moreton-Robinson A (1998) Talkin' up to the white woman. Indigenous women and feminism in Australia. Unpublished doctoral thesis. Women's Studies, School of Humanities. Brisbane, Griffith University, pp 289.

Morrison T (1992) Playing in the dark: whiteness and the literary imagination. Cambridge, Massachusetts: Harvard University Press.

Said E (1993) Culture and imperialism. London: Vintage.

Shore S (1997) The white in the I: constructions of difference and adult education. Crossing borders, breaking boundaries: research in the education of adults. Royal Hollaway College, Egham, SCUTREA (Standing Conference on University Teaching and Research in the Education of Adults), pp 414-418.

Shore S (2000) Unreliable allies: mapping the effects of Whiteness in adult education. Newcastle: University of Newcastle, pp 272.

Spivak G C (1993) Outside in the teaching machine. New York and London: Routledge.

Contact details

Sue Shore
Senior Lecturer
Education
University of South Australia
Holbrooks Rd, Underdale
South Australia 5032
Ph: +61 8 8302 6286
Fax: +61 8 8302 6239
Email: sure.shore@unisa.edu.au

Differing realities: staff development in public and private providers of VET

Michele Simons and Roger Harris

Centre for Research in Education, Equity and Work, University of South Australia

One of the key by-products of training reform in Australia has been diversification in the types of organisations that offer vocational education and training (VET). The numbers of private providers registered on the National Training Information Service database has increased to over 3,000 across all states and territories. Another by-product of the reform process has been the gradual transformation of the roles of those persons charged with the delivery of VET. Teachers and trainers are now being called upon to take up an increasingly diverse range of tasks in environments that include schools, workplaces and virtual classrooms. The overall picture is of an increasingly diverse workforce, where shifts are occurring in terms of employment patterns (particularly in relation to the casualisation of the workforce) and the requirement for teachers and trainers to undertake initial and ongoing training for their roles.

This paper is based on data collected as part of a NREC-funded study which examined the changing role of staff development for teachers and trainers in VET (Harris et al 2000). The paper takes as its particular focus the presentation of data relating to the nature and extent of staff development activities undertaken by teachers and trainers in public and private training organisations.

Background literature

Recognition of the changing role of VET teachers and trainers and their importance in the development of a quality VET system was noted as far back as the early 1970s. Kangan (Australian Committee on Technical and Further Education 1974) asserted the importance of intensifying teacher development as a key to improving the overall quality of education in the technical and further education (TAFE) system. A sequence of studies examining the role of the TAFE teacher pointed to an increasingly diversified role for teachers which extended well beyond their traditional roles as classroom-based teachers (Chappell and Melville 1995; Hall et al 1991; Lepani 1995; VEETAC Working Party on TAFE Staffing Issues 1992; VICAD 1998).

The development of the Workplace Trainer and Assessor competency standards (CSB-Assessor and Workplace Trainers 1994) in the early days of training reform was significant for a number of reasons. This was perhaps the first articulation of the role of *VET* teachers and trainers. TAFE teachers were subsumed into a much broader grouping of teachers and trainers who worked in a diverse range of settings. Secondly, it also made possible the disaggregation of the role of a VET teacher and trainer into a number of functions, all with their own separate developmental pathway. The most recent version of the standards (included in the Training Package for Assessment and Workplace Training - NAWTB 1999) potentially allows for teachers and trainers to be trained to work as:

- assessors
- trainers of small groups (the equivalent to the former Workplace Trainer Category 1 qualification)
- deliverers of training
- deliverers and assessors of training, and
- managers of assessment and training.

The workplace assessor and trainer competency standards have had a dramatic effect on the provision of staff development for teachers and trainers themselves (Mathers 1997). A number of major programs have been undertaken to ensure that all staff either complete courses in workplace training or undertake a recognition of prior learning (RPL) or recognition of current competencies (RCC) process to confirm their competence. Courses arising from the standards have become the de facto qualification for teachers and trainers, thus supplanting to a considerable extent previous requirements for undertaking tertiary studies (Harris et al 2000).

Staff development involves purposeful activities which are directly related to the work of the teacher/trainer. It is important to note that staff development can also include initial teacher training. Within VET, there are less clear distinctions between initial training and continuing staff development. Some VET teachers undertaking initial teacher training may be quite experienced, having moved into teaching from industry (Smith 1997, p 109). Currency of industry knowledge and skills is given high priority, with teaching expertise being developed at least initially on-the-job and later through a program of study at a university or a RPL process with a registered training organisation (RTO).

Prior to the reforms of the early 1990s (when VET and TAFE were virtually synonymous), TAFE providers offered internal basic teaching skills programs for permanent, contract and casual staff. Universities also played a significant role in the provision of professional development, particularly for TAFE staff. With the advent of the national workplace trainer and assessor competency standards, a wide range of training providers became involved in offering courses to meet these standards. Major initiatives to support VET staff in implementing the training reforms were developed at both state and federal levels. Examples of these programs included *Implementing CBT, CBT in Action, AVTS Professional Development, National Transition Program,* various National Staff Development Committee initiatives and more recently, *Framing the Future* and *LearnScope.*

In contrast with earlier staff development initiatives that were fundamentally derived from a skills deficit notion and used 'train the trainer' models of delivery, more recent programs have used action learning, work-based learning and flexible delivery as core components. In effect, the provision of staff development appears to be moving towards models which favour the development of 'practical knowledge' – that is knowledge generated as part of practice and which is bound by the situation in which it is generated (Hoban 1997, p 1). This trend is in keeping with broader initiatives promoting situated learning for many occupations. Staff development takes on an *ad hoc,* though not necessarily totally random, character. Learning is still highly structured by the nature of the workplace and the work undertaken in it. Recent research (Poell et al 1998; Van der Krogt 1998) suggests that learning in the workplace can take on multiple forms (learning embedded in policies and formal learning programs, learning in groups, learning driven by external bodies such as professional associations, learning initiated by individual workers). All of these forms are valuable and together comprise the rich and varied network of learning that can be used to underpin and support teachers and trainers in their various roles.

The research process

The nature and extent of the structured staff development undertaken by teachers and trainers employed in public and private RTOs was one component of a larger study which examined the changing role of staff development for VET teachers and trainers (Harris et al 2000). Organisational level data relating to the structural arrangements underpinning the provision of structured staff development were obtained from a telephone survey of human resource personnel in 394 VET providers across Australia. Data relating to the nature and extent of staff development activities undertaken by teachers and trainers were derived from a postal survey of teachers and trainers employed in 311 of those organisations responding to the telephone survey.

The sample of RTOs was comprised of 42% commercial providers, 30% community-based providers, 16% enterprise-based providers and 12% TAFE institutes (Table 1).

Table 1: Sample of registered training organisations by type of provider and state

	TAFE institutes	Commercial provider	Community-based provider	Enterprise-based provider	Total
South Australia	6	17	9	6	38
Victoria	12	29	37	15	93
New South Wales	4	32	25	15	76
Northern Territory	3	4	4	1	12
Western Australia	9	22	12	8	51
Queensland	13	47	22	15	97
Tasmania	1	7	5	2	15
Australian Capital Territory	0	9	3	0	12
Total	48	167	117	62	394

Of the 686 teachers and trainers who participated in the postal survey, 55% were employed in public and 36% in private RTOs. Nine percent of respondents labelled their employer as 'other', which comprised combinations of the private categories (community-based, commercial and enterprise-based) of provider. Almost 53% were employed on a permanent basis, with 23% employed on a contract basis, 20% on a casual/sessional basis and 4% working as self-employed contractors.

One fifth of the teachers and trainers (n=141, 20.6%) worked for more than one VET provider. One quarter of the private staff, compared with 17% of the TAFE staff, worked for other providers. Nearly one quarter of the respondents (n=163, 23.6%)

claimed that their main occupation was not as a teacher or trainer. Many of those for example in the casual/sessional mode of employment would have had occupations other than teaching as their primary job. Eighty-six percent of the TAFE staff listed their main occupation as that of a teacher/trainer, compared with 64% of the staff in private providers.

Within each of the four types of providers, there were not great differences in employment modes. Around 50% were permanent in three of them, with a higher proportion (65%) permanent in enterprises. TAFE and community-based providers were more likely to employ contract staff, the other two more likely to engage self-employed contractors, and enterprises less likely to employ casual/sessional trainers.

The mode of delivery in which the majority (52%) worked was 'predominantly institution-based', with lesser proportions reporting 'predominantly flexible delivery' (28%), 'predominantly on-job' (18%) or a combination of these modes (29%) (some respondents gave more than one answer). Far more TAFE staff (63%) were engaged in institution-based delivery than non-TAFE staff (40%).

The predominant fields of study in which the responding teachers and trainers worked were business/administration (n=127), ESL/literacy/numeracy (n=125), health/community services (n=103), computing (n=78) and service/hospitality (n=65). TAFE staff were concentrated more than private staff in architecture/building (7% cf 3%), surveying/ engineering (10% cf 4%), hospitality/service (12% cf 7%) and arts/humanities/social sciences (12% cf 5%). Staff in private RTOs were more involved than those in TAFE in the four areas of health/community services (21% cf.12%), ESL/literacy/numeracy (21% cf 17%), education (13% cf 6%) and computing (15% cf 10%).

Structural arrangements to support the provision of staff development for teachers and trainers

Overall, 30% of the providers had a specialist staff development unit or section, 30% had a staff development committee and 76% had people within their organisation with specific responsibility for staff development. Given the climate of tight resources, these proportions were high and were an indication that the providers were serious about staff development as an integral component of their operations. Further analysis shows that TAFE institutions have these structures in place far more than private providers (Figure 1), which may be a reflection of the larger size and longer history of the public institutions.

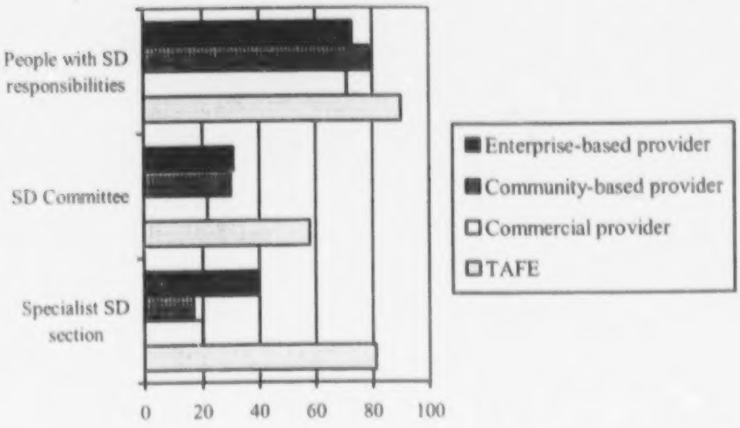


Figure 1: Staff development structures in private and public training providers

Factors influencing decision making about staff development

As part of the telephone survey, human resource personnel from each registered training organisation were asked to rate the importance of various factors influencing staff development decisions within their organisation. Figure 2 shows the breakdown of these factors by type of provider.

The factors that are reported to influence such decisions in TAFE are significantly more related to government policy directions (eg training reforms, the open training market and RTO registration requirements) and their consequent impact on the institutional context (eg organisational strategic directions, senior management commitment and changes in attitudes and culture) than they are in the case of the private providers.

The responses of the private providers are relatively consistent with each other. The slight variations are consistent with what would be expected given the nature of their type of RTO. For instance, enterprises are more influenced than the others by the driver of changing attitudes and culture, while commercial providers are more influenced than the others by the open training market and improving client focus, and the community-based ones more influenced by funds availability and organisational strategic directions.

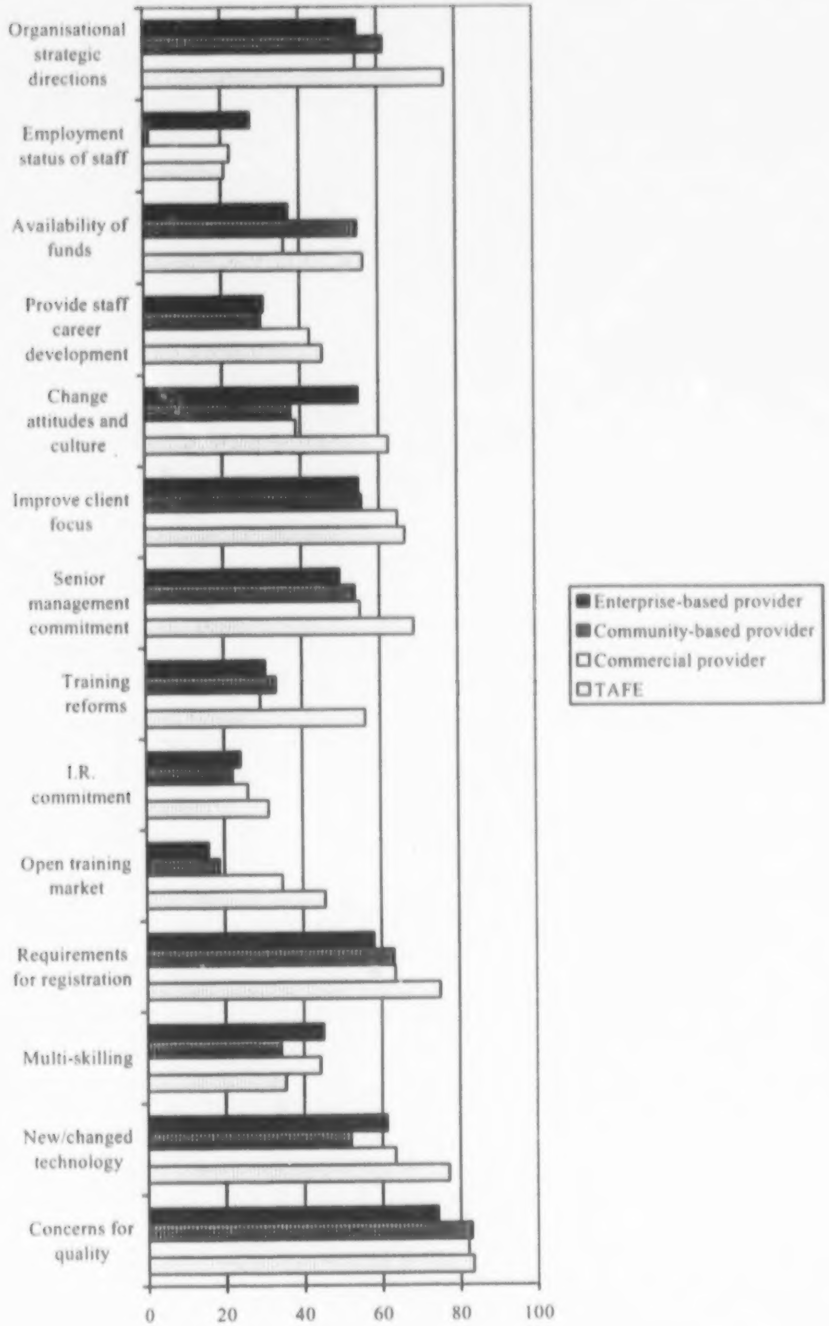


Figure 6: Factors affecting decisions about staff development (rated 'very important') by provider type

Staff development activities undertaken by teachers and trainers

Staff development activities in this study were divided into two main types:

- *formal qualifications* - defined as courses where an award is conferred upon successful completion. They can include postgraduate and graduate qualifications (in a discipline/trade, or specific teaching qualifications) and/or workplace trainer/assessor certificates.

- *structured education and training activities* - defined as work-related activities that could be initiated by the teacher or by the employer, and are designed to develop employment-related skills and competencies, but do not lead to a formal qualification. They can include workshops, lectures, tutorials, training seminars, conferences, industry release, interstate or overseas tours to observe best practice, new developments, action learning programs, flexibly delivered programs and self-directed learning packages.

Formal qualifications

Seventy-six percent (n=299) of the providers require teachers/trainers to have a minimum teaching/training qualification at the time of their appointment, and 42% (n=167) require them to complete teaching/training qualifications after they have commenced employment in their organisation. There was a statistically significant difference in the approaches of public and private providers in their patterns of recruitment. While only 54% of TAFE institutions required a minimum teaching/training qualification at the time of appointment, as many as 81% of commercial, 79% of community and 73% of enterprise-based providers required this ($X^2 = 16.04$, df = 3, p = .001). Conversely, the equivalent percentages of providers requiring these qualifications to be completed after appointment were 69% for TAFE, and 41%, 33% and 44% for the three types of private provider ($X^2 = 17.81$, df = 3, p = .000).

The teachers and trainers were asked to provide details of the formal qualifications they held and when they had completed them. Respondents could provide details on up to five qualifications. These data are reported in Table 2.

There were several marked and revealing differences between private and public teachers/trainers in the type of formal qualifications they had completed. TAFE staff had focused more than private staff on trade/technician certificates (17% cf 6%), and on various levels of teaching awards (89% cf 58%), especially postgraduate teaching qualifications. On the other hand, staff in private RTOs had concentrated more than TAFE staff on non-teaching postgraduate qualifications (25% cf 15%) and workplace assessor/training awards (62% cf 43%), especially the Certificate IV in Workplace Training.

One significant trend to emerge is that a large number of qualifications held by teachers and trainers prior to their employment in the VET sector relate to their discipline area (that is, non-teaching qualifications). Once employed, a large number of teachers/trainers gain qualifications which further develop their teaching/training skills. However, teachers/ trainers working in private RTOs were more likely to have a teaching/training qualification prior to employment (57%

compared with 43%). This is in keeping with the trend noted above from the RTO data, in relation to the requirements of private RTOs for their newly appointed teachers/trainers already to have teaching/training qualifications prior to appointment.

Table 2: Formal qualifications acquired before and after employment, by type of RTO

Qualification	Employed in public RTO (n = 362*)				Employed in private RTO (n = 297*)			
	Acquired before		Acquired after		Acquired before		Acquired after	
	N	%	N	%	N	%	N	%
Certificate (other**)	65	18	32	9	39	13	29	10
Advanced certificate	8	2	8	2	5	2	-	
Trade	57	16	2	1	15	5	2	1
Technician	1	-	-		-		-	
Diploma (other)	44	12	11	3	41	14	13	4
Associate diploma	20	6	4	1	13	4	3	1
Advanced diploma	4	1	1	-	3	1	2	1
Bachelors degree (other**)	133	37	18	5	112	38	9	3
Postgraduate qualifications (other**)	23	6	30	8	42	14	29	10
Workplace assessor certificate	4	1	33	9	8	3	31	10
Workplace trainer Category 1	4	1	11	3	10	3	12	4
Certificate IV in Workplace Training	15	4	87	24	36	12	85	29
Bachelors degree (teaching, adult/ vocational education)	4	1	24	7	4	1	7	2
Bachelor of Education	28	8	31	9	33	11	16	5
Teaching diploma	30	8	43	12	36	12	13	4
Diploma of Education	36	10	16	4	19	6	3	1
Postgraduate qualification (teaching, adult/ vocational education)	26	7	64	18	16	5	13	4
Teaching certificate	9	3	8	2	7	2	2	1
Other formal qualifications	66	18	67	19	82	28	65	22

Notes: Respondents could give more than one answer. 'Other' means not in teaching or education.

Formal qualifications currently being undertaken

One-third of the teachers and trainers were currently undertaking studies for formal qualifications at the time of the survey (including 17 teachers who were studying for two formal qualifications at the same time). Thirty-four percent of the TAFE staff and 29% of the staff in private RTOs were currently studying. By employment mode, 100 (28%) of the permanent staff, 71 (45%) of the contract staff and 40 (30%) of the casual staff were in the process of completing formal qualifications at the time of the survey.

There is virtually no difference between public and private teachers/trainers in terms of reasons for completing formal qualifications. There were only two reasons where the ranking differed and, in these cases, the difference was only by one position. The top four reasons were identically ranked:

- to assist long-term career prospects
- to acquire qualifications
- to enhance qualifications already achieved
- to update industry knowledge and skills.

Structured education and training activities

The study inquired from teachers and trainers what structured education and training activities (across a range of designated topics) they had undertaken in the last twelve months while employed in their RTO (they could give more than one response). Only 10% (n=71) of teachers/trainers reported that they had undertaken no such activities in the past year: these were evenly divided between public (36 teachers/trainers) and private providers (35 teachers/trainers).

Table 3: Number of teachers/trainers who have undertaken staff development covering the designated topics

	Public sector		Private sector	
	Frequency *	% (n = 373)	Frequency *	% (n = 304)
Leadership and management skills	86	23.1	98	32.2
Industry liaison	99	26.5	63	20.7
Project management	48	12.9	43	14.1
Quality assurance	79	21.2	60	19.7
Computing/IT	146	39.1	113	37.2
Interpersonal skills, team work	90	24.1	75	24.7
Research skills	34	9.0	28	9.2
OH&S	116	31.1	79	26.0
Training Packages	166	44.5	132	43.4
User Choice	45	12.1	50	16.4
New Apprenticeships	52	13.9	41	13.5
Updating teaching/training skills	86	23.0	75	24.7
Updating discipline/field of knowledge	127	34.0	73	24.0
Assessment	82	22.0	89	29.3

Other areas	39	10.5	21	6.9

Note: Respondents could give more than one answer.

Table 3 indicates that by far the most common types of staff development activities (albeit for less than half of all respondents) for teaching/training staff in both public and private providers were in the areas of Training Packages and computing/IT. Beyond these topics, these data then reveal some important differences in foci. Just over one third of teachers/ trainers in public RTOs undertook staff development activities relating to updating their discipline/field of knowledge compared with just under one quarter of teachers/trainers in private RTOs. Whist updating teaching skills was undertaken by comparatively similar proportions of staff from both types of RTO, more staff from public sector organisations undertook staff development in occupational health and safety and industry liaison. Assessment was a focus for 29% of staff development activities for teachers/trainers in the private sector compared with only 22% in the public sector. This difference in interest in training and development related to assessment could be viewed as somewhat surprising, given that assessment has been a core component of the competency-based training system within VET for over ten years. It may, however, reflect the re-emergence of assessment as an issue in relation to the implementation of Training Packages or the interest of private providers in providing 'assessment only' services to clients. The relatively low frequencies for staff development in New Apprenticeships and User Choice for all types of provider may reflect the fact that these policy areas have been under implementation for a period of time or that they are not so relevant to the teachers in this sample. The relatively low frequencies of staff development relating to research skills are also of note.

The reasons for undertaking structured staff development activities centred on updating discipline/field, keeping up with the current job and updating teaching/training skills (Table 4). The high ranking of updating discipline/field knowledge by teachers/trainers in private RTOs stands in contrast to the reported areas in which they undertook their staff development activities (Table 3). This may be accounted for, in part, by the fact that a larger proportion of teachers from private training providers taught in computing-related fields and therefore staff development in IT/computing addressed their 'field of knowledge'. Across both types of provider, staff development activity was not clearly being used primarily for the purposes of short-term promotion and long-term career advancement, nor even for job satisfaction (particularly for private RTO teachers/trainers).

Table 4: Reasons for undertaking structured staff development by type of RTO

Reason	Public RTOs Ranking	Private RTOs Ranking
Enhance qualifications already received	Ranked 5	Ranked 4
Keep up with current job	Ranked 1	Ranked 2

Required by employer	Ranked 6	Ranked 5
Update discipline/field knowledge/skills	Ranked 2	Ranked 1
Increase job satisfaction	Ranked 4	Ranked 6
Get promotion in the short term	Ranked 8	Ranked 8
Assist long-term career prospects	Ranked 7	Ranked 7
Update teaching/training skills	Ranked 3	Ranked 3

Factors preventing teachers/trainers from undertaking staff development

Teachers and trainers were asked to choose from a number of factors that they believed prevented them from undertaking formal qualifications or attending education and training activities in the last twelve months (Table 5).

The most often cited barriers preventing teachers and trainers from undertaking both formal qualifications and structured staff development activities were exactly the same regardless of the type of RTO. Pressure from work and difficulties with the location and timing of staff development opportunities were clearly significant barriers. The perception that both public and private RTOs do not have enough funds for structured staff development activities was also cited as a significant barrier – most notably by more teachers/trainers employed in public RTOs. Barriers relating to the funding of study for formal qualifications and family commitments were significant barriers for teachers and trainers regardless of their employer.

The need to take off time without pay to attend staff development activities of any type appears to be a more significant barrier for teachers/trainers in private RTOs, whilst the issue of finding replacement teachers appears to impact on greater numbers of teachers employed in public RTOs. The perception of a lack of encouragement from employers is also a notable barrier.

Table 5: Factors preventing teachers / trainers undertaking staff development by type of RTO

	Structured education and training activities		**Formal qualifications**	
Factor	**Public** % (n = 373)	**Private** % (n = 304)	**Public** % (n = 373)	**Private** % (n = 304)
Approval not given	11.3	3.6	2.9	4.3
Available places taken	9.7	3.6	1.1	3.6
No relief teachers/trainers available	25.7	13.8	7.2	8.2
RTO does not have enough funds for SD	27.3	13.5	9.9	11.5
Insufficient information	12.9	10.2	6.2	5.3
Teacher/trainer - no money to spend on SD	12.6	9.2	11.3	13.8
Location and timing difficulties	38.3	33.2	18.0	19.4
Dissatisfied with previous SD	5.1	3.6	2.1	1.6
Lack of encouragement from employers	15.0	10.5	10.5	7.2
Pressure of work	42.4	39.9	22.0	31.6
Family commitments	13.7	12.5	12.6	15.8
Child care not available	4.0	3.3	1.6	2.6
Activities not relevant to needs	10.2	9.5	2.7	4.3
Not interested	0.5	1.0	1.6	1.0
Not eligible to attend	2.4	1.3	0.8	1.6
Negative reports of SD	1.6	1.6	0	1.0
Reluctant to take time off without pay	6.4	9.5	6.7	10.9
Other reasons	0.8	3.0	2.7	5.9

Note: Respondents could give more than one answer.

Discussion and conclusions

This paper has reported on a subset of data from a larger study examining staff development activities of VET teachers and trainers in a sample of respondents from public and private RTOs across all states and territories. It has also identified perceived barriers to participation. These findings underscore some of the similarities and differences in the approaches to staff development that are emerging in a context where the VET workforce is increasingly diversified.

The difference in approaches to what is required of teachers and trainers at the time of appointment is a significant issue. Private training providers are far more likely to recruit already qualified staff, while TAFE is more prepared to follow what has been 'traditional' practice in allowing their staff to complete their teaching/training qualifications following appointment. At this point in time, it appears that private training providers are able to meet their demand for qualified staff, but this may not always be the case. In the absence of people with relevant industrial experience being prepared to undertake a further qualification in the hope of perhaps obtaining work with private training providers (or a 'pool' of VET teachers and trainers who are seeking work as a result of redundancy or downsizing, etc), the issue of the most appropriate developmental pathway for the preparation of VET teachers and trainers needs to be addressed. This scenario is further complicated by evidence that supports the emergence of an increasingly differentiated VET workforce where a highly trained permanent cohort of teachers and trainers are working alongside staff with less qualifications working within carefully prescribed guidelines. Alternatively, teachers and trainers might be working collaboratively with a range of people for whom the task of training is only one part of their job (for example people working with apprentices and trainees in the workplace). Career paths could potentially either disintegrate or become highly fragmented, thus rendering the decision to make a costly investment in ongoing training and development a problematic one for many teachers and trainers.

The difference in recruitment practices between public and private VET providers also explains to a considerable extent their varying approaches to ongoing staff development. Far more TAFE institutions have specialist structures for staff development than do private training providers. This fact, coupled with an emerging trend for teachers/trainers to make a contribution to the costs of their initial and ongoing development, may result in the responsibility for training and development for teachers and trainers being unevenly shared across providers in the VET sector.

This presents an even greater dilemma in the context of evidence from this study, which suggests that factors more external to providers and their staff are most heavily impacting on decisions made by providers about staff development. The changing policy context of VET evidently has a heavy influence on the nature and extent of staff development. Staff development appears to be driven largely by the need for training organisations to comply with the requirements of various external agencies. This increases the tension between the needs of organisations in terms of outcomes from staff development activities and the needs of individual teachers and trainers in terms of their career advancement, and improved capacity to deal with the demands of work or job satisfaction.

Both VET teachers and trainers and the organisations that employ them have three choices in relation to staff development – to opt out entirely, to do the minimum, or to adapt their thinking about staff development in order to meet the demands of new environments in which they are operating. Staff development does have a role in the second of these alternatives, in that it can help survival in the same things (eg teaching techniques, package development) or bring about minor changes (eg 'awareness' of policy shifts). However, it is in the third of the above alternatives that staff development has the most significant role to play, through assisting VET teachers and trainers to work professionally.

Evidence from this study indicates that a significant quantum of staff development is occurring, and in certain areas. Some of this activity could be classified as relevant to the second alternative above. But there is also other activity that is potentially integral to the third alternative. Alongside the changing profile of the VET workforce, the role of VET teachers and trainers is also undergoing considerable rethinking. Certainly there is evidence now of an awakening interest among policy-makers and researchers in the 'new VET professional'. Understanding how teachers and trainers might be able to work creatively in developing new knowledge and approaches to education and training in complex and dilemma-ridden environments - that is, to work professionally - remains the task of further research.

Acknowledgements

The authors of this paper acknowledge the support of the other members of the research team in the full study: Doug Hill, Erica Smith, Ron Pearce, John Blakeley, Sarojni Choy and David Snewin.

References

Australian Committee on Technical and Further Education (1974) TAFE in Australia: report on needs in technical and further education (Kangan Report). Canberra: Australian Government Publishing Service.

Chappell C and Melville B (1995) Professional competence and the initial and continuing education of NSW TAFE teachers (part 1). Sydney: Research Centre for Vocational Education and Training, University of Technology, Sydney.

Competency Standards Body Assessor and Workplace Trainers (1994) Workplace Trainer Competency Standards. Canberra: CSB – Assessors and Workplace Trainers.

Hall W (ed) (1991) National review of TAFE teacher preparation and development. Stage 1A and 1 B: skills and competencies. Stage 2: models. Adelaide: TAFE National Centre for Research and Development.

Harris R, Simons M, Hill D, Smith E, Pearce R, Blakeley J, Choy S and Snewin D (2000) The changing role of staff development for teachers and trainers in VET. Adelaide: National Centre for Vocational Education Research.

Hoban G (1997) Opportunities for knowledge building in professional development models. In R King, D Hill and J Retallick (eds) Exploring professional development in education. Katoomba: Social Science Press.

Lepani B (1995) Vocational education and training 2005: a discussion paper on the roles and competencies of the VET teacher in the year 2005. Sydney: University of Sydney Engineering Faculty.

Mathers R (1997) Trends in employment, skill and qualification requirements of training staff. In Australian National Training Authority (ed) Research reports into professional development. Brisbane: Australian National Training Authority.

NAWTB (1999) Training Package for Assessment and Workplace Training. Melbourne: Australian National Training Authority.

Poell R, Van der Krogt F and Wildemeerch D (1998) Solving work-related problems through learning projects. International Journal of Lifelong Education, vol 17, no 5, pp 341-351.

Smith E (1997) Professional development in vocational education and training: coping with change. In R King, D Hill and J Retallick (eds) Exploring professional development in education. Katoomba: Social Science Press.

Van der Krogt F (1998) Learning network theory: the tension between learning systems and work systems. Human Resource Development Quarterly, vol 9, no 2, pp 157-177.

VEETAC Working Party on TAFE Staffing Issues (1992) Staffing TAFE for the 21st Century - Phase 1. Sydney: VEETAC Working Party on TAFE Staffing Issues.

VICAD (1998) Entry level competency standards. Final report (vols 1 and 2). Melbourne: VICAD.

Contact details

Michele Simons
Lecturer/Key Researcher
Centre for Research in Education, Equity and Work
University of South Australia
Holbrooks Rd, Underdale
South Australia 5032
Ph: +61 8 8302 6427
Fax: +61 8 8302 6239
Email: michele.simons@unisa.edu.au

Roger Harris
Centre Director/Key Researcher
Centre for Research in Education, Equity and Work
University of South Australia
Holbrooks Rd, Underdale
South Australia 5032
Ph: +61 8 8302 6246
Fax: +61 8 8302 6239
Email: roger.harris@unisa.edu.au

Managing the transformation to an e-learning organisation

Janet Simpson

Douglas Mawson Institute of TAFE, South Australia

Douglas Mawson Institute (DMI) operates over four campuses; has a diverse student body numbering approximately 17,000, with 78% studying part-time; and is named after a famous South Australian explorer. Like its namesake, the Institute has a vision of leading and developing new frontiers in educational delivery through innovation, design and technology. To implement the vision, the Institute leadership team has initiated strategies to support the transformation to an e-learning organisation. Major elements in the change model are:

- Research and development of new learning technologies;
- Institute-wide professional development;
- New technology infrastructure; and
- Partnerships.

Practitioners as researchers

'Managers leading through learning' was a work-based learning project funded by LearnScope in 2000 that provided a group of 36 managers at DMI with the opportunity to gain hands-on experience in online learning, as an adjunct to the other strategies that are being implemented across the Institute to support the change to an e-learning organisation. The managers' project team was involved in work-based research and used their findings from the project to influence the strategic planning at both work group and institute level. My role in the project was project manager and co-facilitator, and so I, too, was a practitioner as researcher, focusing on the work-based learning model as a change agent.

Like any new skill being learnt, 'Leading through learning' presented the managers at Douglas Mawson Institute with as many challenges as opportunities. It really was and continues to be a 'work in progress'!

Work-based learning as a change agent

Extensive research has made it clear that learning occurs most effectively when learners can take responsibility for their learning. This means that individuals decide for themselves what to learn, why, where and how. Victoria Marsick, a leading researcher into the issues of work-based learning (WBL) and editor of the pioneering 1987 volume, *Learning in the workplace*, has this definition:

> WBL is frequently self-directed and self-monitored. It can be conscious, through trial-and-error, apprentice-like observation of more experienced individuals or imitation of role models. Or it can be less conscious, such as the process by which individuals become socialised into conforming …

In 'Managers leading through learning', the individuals were able to select their own online course from a suite of options. They were then asked to operate independently to simulate student conditions for learning in the online model as we know it. The group met fortnightly for Managers Forums and the project was not always an agenda item. Outside of these regular meeting times, the large group was divided into smaller units to discuss the learning that was happening whilst completing the online experience.

> Most people are better at taking on and doing tasks, than they are at thinking about what they've done and learning from the experience
> (Australian National Training Authority: *Workbased learning: a ready reference*)

Climbing mountains or tunnelling through to the other side!

Now that the LearnScope journey is finished for the DMI managers, it is possible to look back and evaluate the groundbreaking expedition. This was the first time that this group of managers had been asked to participate in a WBL project. They had little experience in functioning as a team, or tackling a team-based professional development activity. At the outset of the project, very few of them used more than email in their daily work.

At the outset of the project, there were mixed reactions to the idea of having hands-on experience in online learning. Some of the reasons for this were:

- Lack of experience or confidence in using computers
- Caution about methodologies they regard as unproven
- Belief that technology-based applications were not relevant to content specifics
- Belief that the online environment does not suit some students – their students don't want technology-based courses (or don't have resources to take up these options)
- Belief that computer-based options threaten human interaction – there is a high value placed on face-to-face learning
- Belief that the investment required to develop the online environment is not cost-effective
- Preoccupation with other priorities.

What did we do to get the managers interested in 'having a go' in the online environment?

The journey into the new frontier of Online Learning began with a small group of keen adventurers: Pene Davey, Institute Director for Educational Development; Janet Simpson, Professional Development Officer; and Barbara Whyte, Student Services

Officer. The initial discussions revolved around the merits of involving all managers – a daunting 35 people – or offering the opportunity to participate on a voluntary basis. Because we wanted to maximise the chance of creating an attitude shift to flexible learning as the DMI foundation of educational methodology and to embed the learning into strategic planning, the group opted to work with the whole managing team.

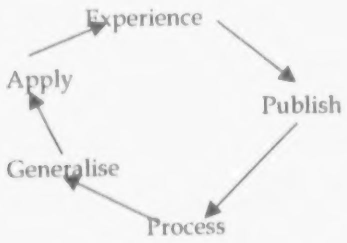
At this time, two managers exercised their option to opt out of the project. To enthuse the participants, we incited our namesake - Douglas Mawson, intrepid explorer - and used the expedition analogy to build interest and fun into the project: 'The adventurous spirit of Douglas Mawson was being rekindled in the learning journey of its managers'.

A WBL project provides opportunities for diversity, flexibility and customisation according to participants' needs. With 36 participants this was essential, and so the WBL model seemed an ideal vehicle to facilitate change. However, at this point the initiating team was committed to the work-based project, while the larger group was questioning its relevance to its roles and responsibilities.

Gathering supplies and getting the expedition ready

This was an idle time for the participants, as the expedition was not yet underway! We lost momentum as we tried to track down online modules that met the needs of the participants (ie relevant professionally to the participants). Not much WBL happening yet!

At our next Combined Expedition Gathering, the participants were given a list of courses to select from, and experienced mounting frustration because they couldn't enrol immediately online. There was an expectation that online meant learning right now and just for me!
The WBL model was introduced as an Experiential Learning Cycle –



and what this meant in relation to the way they would operate during the life of the project. For WBL to act as a change agent, participants must be given the opportunities to reflect on experiences – therein lies the key! The team learning plan was circulated for comment … not much response! Again, this emphasises the point that individuals in the workplace see a task function as their primary roles … any learning is implicit or incidental.

Thus, the effect on the impact of WBL as a change agent is related to the extent that a WBL facilitator is able to draw out the learning as part of the task.

Icebound

The sleds were loaded and the huskies hitched! But where were the explorers? The next step in the WBL project was to get the participants learning in the online environment, but they found themselves confronted by the very real barriers of technology glitches, enrolment procedures and other work commitments. Mid-semester break compounded a lethargy by the managers' team to move forward – it was almost as though we had reached high altitude and many members of the team were experiencing altitude sickness.

Starting again

In a desperate bid to regain the participation of the team members, both LearnScope facilitators embraced the Mawson 'Spirit of Adventure' and relaunched the 'Managers leading through learning' project using the Expedition theme to fire up managers' imaginations and renew their commitment to learning and experiencing new frontiers in educational delivery.

Each participant received a Survival Kit for the Expedition.

Participants were reorganised into Base Camps with Base Leaders, to increase the degree of support in their journey. They recorded each other's names in the smaller learning circles and each small group negotiated extra meeting times to discuss their learning experiences. By meeting more regularly and more intimately, it allowed for more sustainable and valuable interaction between managers in relation to their learning experiences. The group had been too large to sustain momentum.

This is a very important key to using WBL as a learning model to bring about any workplace change. The groups must be between 8-14 participants. Any larger and there is a loss of motivation due to lack of personal commitment and relevance.

Crevices and other dangers

By the end of the expedition, we had lost half of our trekkers to such dangers as 'No time', 'Other priorities', 'Can't see the reason for doing this', Lost motivation', 'Not enough help', and 'Aloneness'. Interestingly, the remaining participants began to tackle the key issues surrounding the managing of change to online learning. We invited a guest speaker along to talk to us about what is happening state-wide in Flexible Learning/Delivery and the discussion was lively and very positive. We then headed off into a computer room to post our experiences and reflections onto the Bulletin Board of the Managers' Communication Hub. This was enjoyed by all of the participants and once again reinforces what we know about how people like to learn … in conjunction with others! We linked up with an ANTA fellow, Chris Horton, in a chat session on 3 November, and he answered questions about how Wodonga Institute is managing the change to online learning. Not surprisingly there were many similarities between the Wodonga and Douglas Mawson experiences.

Networking2000 occurred in November and some managers had registrations for this online conference. They found it very difficult to set aside the time needed to follow the relevant threads of discussion at this conference. The overwhelming reflection from the managers was that they would have got more out of a conventional conference that they could attend, as they would have set aside the time physically!

November is a very busy time for all staff, no less the managers. I found that only one or two managers were available for a final meeting to discuss and evaluate the learning in the LearnScope project. To gather comments more broadly, I emailed the LeadScopers, as we named the team, asking them to give me feedback on skills developed, difficulties encountered and flexible learning strategies for 2001 in their various workgroups. I still found their response rate disappointing. It was the same participants throughout the project that participated regularly.

So, what changes happened as a result of the WBL?

Changes

1. Outcomes achieved and skills developed

The following technical skills were mastered by some of the explorers:

- use of an online forum
- informal and formal online chat with each other and with an educational mentor
- competence in using the Web CT platform for online learning
- internet awareness and browser use
- awareness of TAFESA online training options
- awareness of student management online and management of online assessment.

The following educational considerations took place on the journey.

Observing the features of the Virtual Learning Environment

With a variety of online modules to study, both positive and negative features of the VLE were experienced and debated.

Engaging students in online learning, motivating and sustaining students online

Some managers were totally engaged as online learners while others less so - some criticised the medium because they were confronted by technology glitches and others simply did not devote enough personal time to their learning tasks.

Providing skills readiness

The managers' computing skills were audited before they enrolled in their online modules - this allowed the facilitator to suggest appropriate online modules for study.

Understanding of access and equity issues in online delivery and understanding of online facilitation

Understanding of human resource management in an online environment

The Victorian Workplace Consultative Committee allows teacher time to be more flexible - we agreed to keep talking to Chris Horton about this point.

Environment

Understanding of physical resource management online

The managers were acutely aware of the need to manage physical resources, as they experienced much of their frustrations in this area. To have adequate equipment both at home and work was discussed, as it meant the difference between starting the expedition or not leaving Base Camp. The software issues to support enrolment and assessment, and the whole Student Management process in the online environment, were found to be inadequate.

2.0 Who did what and how well

This WBL project was a team learning project and so not all of the team had to learn the same amounts or even the same skills or the same concepts. The underpinning philosophy is that the total learning of the whole team is more valuable than the whole team learning everything! Of course, the participants began at different stages of their journeys to understand better the implications for managing learning online, and so their ends are also different. I believe that the WBL model met with varied success - some thought it was great and others articulated that it was a waste of time.

I also believe that it has raised the awareness of the strategic and operational issues surrounding online learning in our organisation and so it has acted as a change agent.

3.0 Leading to success in a changing world

Embedding strategies for ongoing development of Flexible Delivery/Learning in DMI strategic planning.

As a result of the LearnScope project, a Managers Communication Hub in the FLeET Website was established and it will be a key feature in the professional development strategy for managers at DMI in 2001.

As a result of their experiences and the experiences of others, the Internet site of DMI has become a priority and will be redeveloped in 2001.

Managers agreed to the continuation of an institute-based Flexible Learning Coordinator, whose role it will be to support and guide workgroups in their transition from traditional classroom delivery to a more flexible delivery.

The managers' team also agreed to support mentoring of other staff in WEBCT, seek out strategic links with external educational bodies in the design and delivery of online training, and put e-learning on the agendas of all the workteam meetings across the Institute.

4.0 Critical factors affecting the WBL project

- *Frequent communication* - both face-to-face and online, is essential to keep in touch with the participants and maintain a sense of belonging and remind them of the need to spend time on the project.
- *Keeping a sense of fun* - by invoking the 'Douglas Mawson Explorer' analogy.
- *The Learning Circles* - or 'Base Camps' as we named them, gave participants support from peers and a smaller forum to discuss the more important educational issues.
- *An experienced facilitator* - who recognised potential pitfalls and had strategies to overcome them.
- *Simulating a real experience* - ie let the participants experience the frustrations as well as the highlights of online learning.
- *Making the learning relevant* - to the managers in content and in the workplace.

5.0 Greatest challenges faced by the WBL project

- *The size of the team* - 35 participants is too many. Even though we had two facilitators and we devolved the larger team into smaller learning circles, the initial introduction to the larger group lessened the participants' ownership of and commitment to the learning.
- *Building the commitment of the participants* - the face-to-face meetings were scheduled as part of a regular meeting time. This reduced the sense of value and importance of the learning as it was listed on the agenda, and was sometimes shifted or juggled around other 'more important' items of discussion. On reflection, a separate time needed to be negotiated at the outset of the project.
- *Lack of content knowledge by the project manager and facilitator* - Enrolling participants in their online courses was extremely challenging as there are not a lot of courses being facilitated, and even with the ones that are, they do not have online enrolment. The difficulties that many keen managers experienced in the early stages of the project put them off. As they say: 'first impressions count'! Poor enrolment procedures reduced momentum in the project, even though we drew valuable learning from this experience.
- *Time management and maintaining motivation* – the managers experienced the challenges of disciplining themselves to study online in the work environment. This was one of the most frequent reflections on the learning.
- *Encouraging the managers to use the online communication tools* - especially the Bulletin Board. This is one area that professional development at DMI is going to take up in 2001, and continue to explore ways to involve managers in discussing strategic issues in this forum. The chat was more successful, as

we set aside a separate time for this and the time was finite.

- *Online learning vs core business* – In November, few managers were able to reflect on their learning as they were involved in planning for next year in their workgroups.

6.0 Benefit of a WBL project to DMI

The main benefit for the organisation was that the 'e' in education gained a whole new meaning for the managers at DMI. For better or for worse, the managers learnt first-hand what it is to be involved in e-learning. All of the managers, no matter what level of online skills they began the project with, have now moved slightly along the learning continuum. The managers have an insight into the opportunities and challenges of online learning. From the LearnScope project there has been a commitment to continue to learn in the new environment, and support strategies to help workgroups make the transition to e-learning, as appropriate.

Another benefit to the organisation is the raised awareness of the importance of WBL projects, and especially LearnScope, as an effective professional development strategy. Douglas Mawson Institute will certainly aim to build on the learning of this year and gain new funding in 2001.

Conclusion

From my experiences with the managers' LearnScope project and other WBL projects, I conclude that WBL does enable practitioners to be researchers - exploring new frontiers in the workplace. The Work-based Learning Model allows for a large number of participants to be involved in the research, allows for the collection of data by the facilitator, and provides time for reflection so that the research can be translated into new and/or better ways of doing business.

Contact details

Janet Simpson
Professional Development Officer
Douglas Mawson Institute of TAFE
South Australia
Email: Simpson4@esc.net.au

Technology - an additional tool for learners

Linda Smart and Ben Fennessy

TAFE Frontiers, Victoria

What will the learners of today be engaged in at work and play in twenty, thirty or forty years from now?

Noone knows!

Today's learning context

How could we have envisaged the Internet, Call Centres and email? Could we have conceived utilising technology in work and as educational tools twenty years ago? We couldn't. So we did not prepare our learners for these future possibilities. What we know now is that change is inevitable and that we need to prepare learners for 'lifelong learning', to allow them to respond and adapt to new opportunities as they arise.

The technological age is impacting on every aspect of our lives; we have access to so much information that it is almost beyond comprehension. As educators it is imperative that we encourage the development of skills in information management.

> In times of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists.
> (Hoffer 1989)

The increasing speed of information generation provides both a need and a desire for an increased ability to grasp and apply knowledge, at the same time as we are developing an understanding about how we learn. This is shedding light on how to increase our learning abilities. We have come to understand that people are born as natural learners. We don't lose this ability for lack of nurturing, nor to the aging process.

We have an increasing awareness of the need to encourage lifelong learning as our way of keeping pace with the Information Age. In some sectors of our society, lifelong learning is being embraced. However, some individuals have resisted this change in the form of general apathy, entrenched opinions, and fear of change. But time marches on. Probability law says that if it can happen it will happen eventually. How can we hasten the coming of the learning society? This has to be through education and learners.

Transforming our learning culture will depend on a partnership between individual responsibility and the wider community. As learners increasingly take charge of their own learning and determining their need for skills, they will require support to enable them to achieve their goals.

Systematic lifelong learning can significantly help develop people's skills, orientations and confidence to navigate the many risks, uncertainties and ambiguities of contemporary life. It constitutes a key resource, enabling people to participate in the shaping of society to take advantage of social and educational change, rather than be its possible victims.

> Education is about change. Fundamentally. Why? Because almost everything we know about education is up for grabs: the way it is funded, designed, managed and even delivered. Around the world, wholesale efforts at education reform are already underway; and these changes are taking place in "Internet time". This is the new education economy- the global education economy.
> (The New Education Economy 1999)

It is also important to recognise that, just as social change must proceed on many different fronts, so too a variety of different learning opportunities will need to be created. There is no 'one best way' or universally applicable type of learning style, irrespective of people's circumstances or the organisational or institutional settings they find themselves in.

Preparing learners for this social and educational change and embracing it has to become a priority.

Learners need not be tied to particular locations. They are able to study at home, at work, or in a local library or shopping centre, as well as in TAFE institutes and universities. People are able to study at a distance using broadcast media and online access. Our aim must be to help learners gain the maximum from these opportunities, and to achieve this, educators must learn how to identify what medium is appropriate and support learners in assessing how they are doing and where they want to go next.

As location becomes less of an issue, the family takes on a bigger role in facilitating learning and can contribute to the reversal of a sometimes vicious downward spiral of under achievement, low grade employment, unemployment, poverty, low self-esteem, poor quality of life and social exclusion. It also provides a valuable context for inter-generational learning that could include shared access to, and pleasure in using, information and communications technology.

The technology

Learners' interests, imagination and creativity are the starting point for planning computer-supported learning experiences. Learners should be able to select a computer-based activity just as they would any other activity - on the basis of interest to them as an individual or as a group exploration.

> The goal must be to build learning strategies and assessment systems that will motivate young people to want to go on learning.
> (Hodgson - *Creating lifelong learners: a new and inclusive vision*)

Intellectual development occurs through interactions and joint problem solving with people more skilled than the learner. In developing learners' thinking, we must value interaction and give appropriate guidance to solve problems and construct knowledge.

Computer-based learning can provide this support through pre-structured content and in-built cognitive supports, eg feedback, sequencing, multiple representations of material, and the predictable flow of activity.

Computers do not bring about learning; it is constructed through:

- the interaction and the management of the software tools
- the desire of learners to understand their world
- teachers' support, guidance and coaching
- the integration of computer access and use into everyday activities
- teachers' levels of familiarity and understanding of the technology.

One of the challenges in applying technology is to motivate educators to facilitate this new culture of learning. This will be critical if learners are to embrace new learning opportunities. As educators we must challenge our own fears and prejudices about embracing technological opportunities to enhance the learning process. There is still resistance to the use of technological tools. After all, it is seldom the learner who is reluctant to acquire new skills; a judgement is made based on the values of the system and attitudes as to whether the learner needs to acquire those skills. We should be moving towards a time when the opportunity for learners to use technological tools is a given, and no different for them than picking up a book or walking into a traditional classroom.

This can be done by:

- encouraging people to have *higher expectations* of themselves and of others;

- providing learning *at a time and a place to suit* the individual;

- ensuring that all learning has high standards of teaching and training;

- providing *information and advice* to people to clear a way through the jungle of jargon and initials;

- making learning welcoming; and

- *giving people the support they need* in order to learn; for instance assisting with meeting the costs of learning, or improving access for someone who has a disability.

The development of technology-based systems must:

- enable changes in teaching, learning and assessment practices - from classroom and teacher-centred to learner-centred - with the required level of learner support to promote successful outcomes;

- be able to be resourced, maintained and sustained within available resources and funding; and

- be available and accessible to all learners, and based on sound pedagogic principles.

I encourage educators to take control of this new learning tool, by:

- Demanding appropriate training and formal education
- Researching best practice principles in using technological tools
- Budgeting for equipment that will provide real opportunities for learners
- Changing Curriculum/Training Packages to reflect the incorporation of technological tools
- Promoting a family learning approach
- Individually embracing and developing skills in managing information.

We can only imagine what the learners of today will be engaged in - at work and play - in twenty, thirty or forty years from now. What we can do is prepare them for the possibilities and the ability to embrace change and become positive contributors in our evolving society.

Using design to enhance the learning experience

TAFE Frontiers is responding to the rapid rate of technological change in the education area. Through our development cycle and developers kit, we are attempting to create resources that make the shift to enhance and assist lifelong learning. The learner will be the ultimate beneficiary of such a process, with programs tailored specifically to the learner and the learning cohort; programs that speak to the learner, offering encouragement, inclusion and support.

> Traditionally, curriculum developers and instructional designers set goals and objectives. The designer that is expected to teach the objectives to the student selects instructional strategies. Both content and strategy are therefore imposed on the student from the outside. Under constructivism, however, students develop their own learning strategies and often their own goals and objectives …
> (Winn - 'The assumptions of constructivism and instructional design', in Duffy and Jonassen 1992, p 18)

I am an enthusiast and an 'early adopter' of new technology. In my previous job I was involved, from a design perspective, in the development of multimedia and online learning materials. While there was consultation with user groups, it was minimal. As developers, we would decide the most appropriate interface, tools and support technologies for online and multimedia resource developments. It was well-intentioned techno-enthusiasm. The products sometimes 'hit the mark' with students and tutors, but more often than not, products produced in this way were often shelved or not used at all. How could this happen? Very simply, poor uptake by learners was due to:

- Lack of computer experience
- No professional development or marketing plan
- Limited access to the computers and the Internet
- Products too sophisticated

- Too many plugins needed
- A high-end computer needed to run products
- Inappropriate language, look and feel
- Artistic and 'techno boffin' approaches to multimedia and online development often took precedence over learners' needs.

Question: Why did you include a Flash animation for this unit? Answer: Because we can!

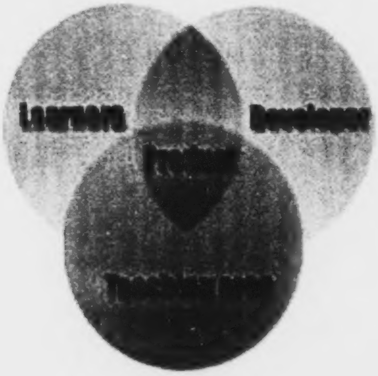
I think it has a lot to do with the beguiling nature of new technologies and its capacity to make us gasp in wonder. Jamerson, a writer on postmodernism, argues that we were once in awe of the natural world, but now technology has replaced this effect as the source of transcendental power:

> great expectations surround the new and emergent electronic technologies. It is assumed whether implicitly or explicitly that the use of new electronic technology will result in more efficient and effective teaching and learning in higher education.
>
> (Robert Fox Office of Teaching and Learning, Curtin University of Technology. Cited in: 'What are the shortcomings inherent in the non-problematic perception of new technologies?')

For some multimedia course designers, the 'bells and whistles' approach is seen to be covering all bases, allowing learners to access material in a way that suits their learning style. But it may actually decrease the effectiveness of instruction. Some recent research into 'cognitive load theory' suggests we can only process a few elements or chunks of information at one time.

> The cognitive load theory is based on the assumption that a person has a limited processing capacity, and that proper allocation of cognitive resources is critical to learning.
> (Slava Kalyuga: 'When using sound with a text or picture is not beneficial for learning', Australian Journal of Educational Technology)

In my experience, I think we failed to investigate and analyse the learners in enough detail, let alone include them in the process. The students and tutors had not been consulted during the development cycle. I believe this non-inclusive attitude needs to be broken down and replaced with a fostering of real partnerships and collaboration between the *learners*, the *teaching area* and the *developers*.



BEST COPY AVAILABLE

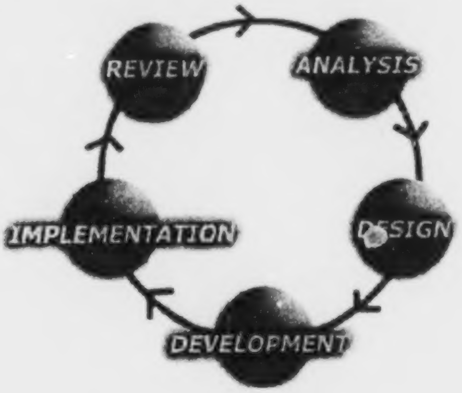
TAFE Frontiers is charged with extending and developing the uptake of flexible learning in the VET area. We believe this partnership between the three stakeholders, teachers, developers and students will be a key tool for enabling this uptake. The partnership encourages a self-directed learning model, and materials that involve the learner in determining what will be the outcomes and how the learning will occur. Learners are enjoying 'having a say' in their education. Development teams report that learners feel empowered with a sense of 'this is for me'. Trainers' inclusion in project development gives them some ownership and offers professional development of the final product they will ultimately be delivering.

Technological issues are of course only one aspect of design and development of successful and engaging learning materials. Socioeconomic, study requirements, language difficulties, age and family responsibilities are all issues that can inform appropriate development. With the wide uptake of National Training Packages across the curriculum spectrum, this intelligence gathering becomes particularly important. For example, mature age students seem to understand the implications, the practical approach and focus of Competency Base Training as leading into the workplace, while recent school leavers appear to see TAFE as an extension of school and lack the understanding of training for 'on the job'.

> Moreover if course content fails to address concerns related to important goals and aspirations such as becoming proficient in the workplace or course processes leave the student feeling powerless and uncomfortable, then frustration and anger are likely to result.
> (Pauline James: 'Student concerns and Competency Base Training Difficulties and coping strategies in vocational courses', Australian Journal of Educational Technology)

The process

TAFE frontiers' product development cycle sets out the model for creating *learner-centred* products.



Involving and collaborating with learners and teachers in all aspects of TAFE Frontiers' development cycle is our approach to developing effective engaging learning resources. Involving teachers in the development of online materials will

BEST COPY AVAILABLE

result in upskilling, and a more seamless bridging from traditional methods to online and multimedia approaches to teaching.

> For many academics, the required changes – from 'traditional' university teaching to the development of online materials, are dramatic and challenging. New approaches to teaching and learning, the strengths and limitations of different technologies, catering to different styles of learning and effective learning environments require a new set of skills.
> (Burford and Cooper: 'Online development using WebCT: a faculty managed process for quality', Australian Journal of Educational Technology, vol 16, no 3)

Our online developments aim to encourage active learning encouraging knowledge construction, and challenging learners to: develop their own understanding; build and develop skills such as problem solving, reflective thinking and information technology literacy; and apply learning to meaningful contexts such as their own backgrounds/work settings.

Analysis

The analysis phase describes the attributes of the target learners, identifying and confirming any special factors relevant to design - ie motivation, context, industry changes, similar or complementary products and appropriate delivery formats and media types for the target group.

Design

The design phase uses the TAFE Frontiers Developers Kit to provide specifications of basic requirements and guidelines for best practice. Building from this framework, developers will be encouraged to seek innovative solutions and approaches, to increase suitability of resources for independent learning and to provide effective support to learners. This could include, for example, involving teachers and learners in reference and focus groups in order to discuss appropriateness of look and feel, navigation and sequencing of materials.

Development

The development phase requires appropriate strategies for interaction with learners and user groups to test design, content, learning activities and assessment approaches. Here, appropriate projects include product marketing strategies, and showing how products will be promoted, integrated and used in the State Training Service.

Review

As well as a formal report, an informal debriefing will complement the written evaluations of the process. Also a twelve-month product maintenance clause is written into project briefs.

By incorporating these strategies into the product development cycle, TAFE Frontiers is confident it will lead to greater uptake of flexible delivery options and offer real choice in learning for students within the VET system.

The Victorian context

All online learning materials developed by TAFE Frontiers conform to the Victorian Government's initiative: the TAFE Virtual Campus. The Government's 'Flexible Learning Strategy' encourages resource developments that are equitable, flexible and engaging. These could involve including planned learning activities that feature group discussion, and other collaborative activities using the communication facilities of the TAFEVC.

In conclusion, this model of development practice is informing TAFE Frontiers' 'next generation' of exciting products; products that engage and support learners' intrinsic motivation to explore and learn.

As discussed earlier in the design phase, a key tool for implementing this development cycle is the TAFE Frontiers Developers Kit. This kit includes guidelines for best practice online and templates for paper-based, online and multimedia developments.

Developers Kit

In establishing a development cycle that keeps developers focused on the outcomes for learners, we can then provide a framework that facilitates this process. As a living, evolving document, we endeavour to support and challenge developers to look beyond traditional methodology by providing a set of development tools. This set of tools informs and guides development teams, linking the end resource back into the development cycle and the learner-centred approach.

The Kit

developers kit
introduction
principles
best practice
guidelines
templates
+
online multimedia fonts

A set of principles

The principles have been developed to reflect our understanding that the learner is the focus for our activity and that the tools we have available support - not drive - this approach. The principles are divided into the following subset:

- Focus on the learner
- Encourage active learning
- Communicate effectively with the learner
- Promote lifelong learning
- Develop materials that are current
- Develop materials that are versatile.

They can be used by learners with a range of particular needs.

Best practice examples

This section provides examples from previous development teams at each stage of the development cycle. We hope to challenge development teams to look beyond their immediate thinking and promote quality processes, which can also provide editable models that can be adapted, rather than continuously reinventing the wheel.

Online and multimedia guidelines

These guidelines provide both the technical specifications and suggested pedagogical and design standards. This is a dynamic area, and we recognise the need to capture the best of current knowledge and make it more accessible to development teams. The challenge is to clarify the constraints and potential of the new and emerging media.

Print templates

The templates have been developed to provide options for developers based on the target learners. There is a choice of three templates for the Learning Resource which provides the content and learning activities. The templates vary in key features such as font size, column width and use of white space. This provides developers with a repertoire of graphic layout styles to better meet the needs of the learner.

Fonts and icons

The fonts and icons have been chosen for their usability, readability and legibility. They set a consistent look and standard for print-based resources.

BEST COPY AVAILABLE

Publishing guide

The publishing guide includes a range of tools:

- a house style guide that provides editing standards for consistent usage
- a glossary of key terms in flexible and online delivery
- a guide to using the print templates
- a guide to requirements for online and multimedia publishing.

Copyright guidelines

All material developed through TAFE Frontiers is copyright to the State of Victoria, and material acquired from other sources must have copyright clearance. The copyright information provides guidelines to developers on how to identify copyright material and the process for using copyrighted material. It also contains a clearance request form.

The Developers Kit will continue to be actively updated and will respond to feedback from current development teams and technological changes.

To conclude

TAFE Frontiers is committed to the learner-centred approach to resource development, in order to:

- challenge and push developers thinking beyond their immediate framework;
- keep abreast of current technological advances;
- guide development teams to pick the most appropriate media for their targeted learning group and learning content; and
- maintain quality resources that support lifelong learning, access and equity.

What will the learners of today be engaged in - at work and play - in twenty, thirty or forty years from now? We don't know, but we can prepare them to be active learners who embrace change and are driven by the desire for lifelong learning, not the latest piece of technology.

References

Australian National Training Authority. Guidelines for print on-demand publications. www.anta.com.au

Booker D (2000) Getting to grips with online delivery. National Centre for Vocational Education Research.

Honey P (2000) Three cheers for tools and techniques. Article 62, November. www.peterhoney.com.

Murdoch C. Online learning.
http://cleo.murdoch.edu.au/eddesign/resources/onlinelearning/index.html

Rock T et al (2001) Report: TAFE Frontiers Developers Kit. March.

Spender D (2000) Online teaching, where to start.
http://www.espc.com.au/dspender/intro/keynote.html.

Contact details

Linda Smart
Field Manager
Executive Officer – Strategic Advisory Group (Learners' Needs)
TAFE Frontiers
Level 1, 620 Bourke St
Melbourne, Victoria 3000
Ph: +61 3 9670 7976
Fax: +61 3 9600 3661
Email: lsmart@tafefrontiers.com.au

Never mind the width, feel the quality: improving VET research in Australia

Andy Smith

National Centre for Vocational Education Research, South Australia

The vocational education and training (VET) research landscape has changed dramatically in the last ten years. In 1993, Rod McDonald and his colleagues at the University of Technology Sydney (UTS) described the state of VET research at that time in their landmark report *No small change* (McDonald et al 1993). In the report, they characterised VET research as a fragmented activity that was underfunded and had little or no relevance to policy or practice in the VET sector.

The perceived shortcomings of VET research in Australia are that:

- current research is fragmented;
- there is little fundamental and general issues-based research in VET;
- the research that has been carried out is not fully used;
- the big issues in vocational education and training need much more intensive research; and
- there is no strong critique of VET policies and programs.

This review might have been yet another report on some area of research that remained on dusty shelves. However, *No small change* had a significant and immediate impact on VET research. McGaw (1996) compares the success of *No small change* to the relative failure of the 1992 Australian Research Council (ARC) review of educational research in Australia (McGaw et al 1992). As McGaw shows, the success of the *No small change* report reflected the engagement of the VET sector in the review from the beginning. Sponsored by VEETAC, McGaw shows that the review was underpinned by a pre-existing belief within key stakeholders in the VET sector of the value of research to inform the rapid policy development that was occurring at the time. The publication of the report also coincided with the establishment of the Australian National Training Authority (ANTA) in 1993 with a brief to oversee the development of the sector. The presence of this single powerful agency meant that the report's recommendations for a large increase in national funding for VET research could be acted upon quickly, in contrast to the general ARC review, whose recommendations for similar action were considered by a large number of agencies, none of whom had sole responsibility for action.

The main result of *No small change* was the establishment in 1994 of the ANTA Research Advisory Council (ANTARAC) with a brief to fund VET research on a nationally competitive basis. ANTARAC was highly successful in increasing the quantum of VET research carried out in Australia and in setting some strategic directions for research.

In 1997, ANTARAC was succeeded by the national managed VET research and evaluation program, commonly known as the NREC program after the National

Research and Evaluation Committee established to oversee its activities. At the same time, ANTA established a program of national key centres for VET research to enable concentrations of expertise in VET to be funded to undertake three-year programs of research into specific aspects of VET policy and practice. Three centres at UTS, Monash University and the University of Tasmania were initially funded in 1997, with a fourth established at Melbourne University and Royal Melbourne Institute of Technology in 2000. The work of the centres has been very important in building research capacity in VET as well as in exploring major issues in the VET sector such as the economics of VET and workplace learning. This paper, however, will focus on the research carried out under the NREC program.

From the beginning, NREC has adopted a strategic approach to research funding. One of the first activities undertaken by NCVER as manager of the NREC program was the development of a national strategy for VET research (National Centre for Vocational Education Research 1997). Published in late 1997, the first national strategy drew on an extensive series of consultations with the principal stakeholders in the VET system to identify six priority areas for research including:

1. Economic and social implications of VET
2. Employment and the workforce
3. Pathways from school to work
4. Outcomes from VET
5. Quality of VET provision
6. Future issues affecting the VET sector.

Within these broad priority areas, NREC has also attempted to cluster research around specific themes and questions. The logic of this process of clustering research has been to draw on the expertise of a number of different research teams, and approach research questions from a variety of methodological and epistemological angles. The result is that research themes can be explored in the round, with no one point of view dominating the subsequent analysis. Table 1 identifies the main thematic clusters that have been funded under the NREC program from 1997-2000 and the number of projects funded under each theme.

Table 1: Main NREC thematic clusters of projects (1997-2000)

Theme	Numbers of projects
Changes in work and the labour market	24
Access and equity	18
Apprenticeship and traineeships	16
Delivery of VET	16
Competency-based training and assessment	15
Outcomes of VET	13
Workplace skills	13
VET practitioners	12
VET and schools	9
Economics and funding of VET	8
Adult and lifelong learning	6

Adult and lifelong learning	5
International comparisons	4
Management of VET	4

A further motif in the NREC program has been to consciously extend the range of researchers involved with the program and, in particular, to encourage the participation of researchers from the VET sector. This has enjoyed some limited success. Table 2 shows that the number of submissions received by NREC from VET providers has nearly tripled from 14 in 1998 to 36 in 2000. Success rates have also been improving, with VET providers scoring around 20% success rates in 2000 compared to the university rates of 18%. This reflects two decisions on the part of NREC in 2000. Firstly, to encourage proposers to include researchers from providers on their research teams, particularly when bidding for projects which involve investigation of providers, and secondly, a movement in the research priorities towards issues that impact on practice as well as policy, such as the development of the VET professional and the impact of online delivery in VET.

Table 2: NREC proposals by source (1998-2000)

2000			
Submissions received from	**No. of proposals**	**% of total** (n=185)	**No. successful**
Universities	89	48	16
TAFE institutes/private providers	36	19	7
Private consultants	46	25	7
Government departments	7	4	1
Industry	7	4	
Other	-	-	
Total	**185**	**100**	**31**
1999			
Submissions received from	**No. of proposals**	**% of total** (n=176)	**No. successful**
Universities	82	47	28
TAFE institutes/private providers	22	13	2
Private consultants	56	32	9
Government departments	11	6	
Industry	3	2	
Other	2	1	
Total	**176**	**100**	**39**
1998			
Submissions received from	**No. of proposals**	**% of total** (n=131)	**No. successful**
Universities	47	36	9
TAFE institutes/private providers	14	11	3
Private consultants	60	46	5

Government departments	4	3	
Industry	5	4	
Other	1	0.8	
Total	**131**	**100**	**17**

A final characteristic of the NREC program has been the emphasis on quality through peer and practitioner review of projects as they progress. Sequenced payments for projects are attached to reviews of interim reports scheduled through the life of the project, with the final payment dependent on review of the final report. This has proved to be a very successful strategy for ensuring that research projects meet the objectives established in the proposal and the contract, as well as helping research teams to meet the deadlines on projects. Peer review at early stages in the life of the project enables researchers to check the viability of methodology before undertaking the empirical stage of work, and latterly to ensure that the analysis of data meets the needs of the research question(s).

This, of course, is a very different approach to national research funding than that traditionally adopted by the big research agencies such as the Australian Research Council (ARC) and the National Health and Medical Research Council. Under these schemes, research is investigator driven. There has been little or no attempt to define the key national research questions let alone develop a national strategy for research in the past, although both agencies are now seriously examining the prospects for the development of national research strategies. The quality of research is assured through a highly competitive, if rather laborious, process of extensive peer review of project proposals, inviting large numbers of both national and international reviewers. After projects have been funded, there is little follow-up and almost no review until results are published in refereed journals, when they are scrutinised through the normal journal review procedures. Moreover, after the research is completed there is little or no attempt to disseminate findings to users, except through the usual academic channels of refereed journals and occasionally monographs. This represents a supply-side model of research in which research issues are framed by the researchers themselves and quality assurance is an entirely front-end process.

NREC is clearly demand-side driven, taking its cue from extensive consultations within the sector, including researchers and developing key themes around which research can be clustered. The priorities are developed into a national VET research and evaluation strategy which informs the process of research funding on a three-year rolling basis. However, researchers have a key role to play in the process. Proposals addressing research priorities are framed by researchers; and questions and methodology research teams are all developed by researchers, with NREC deciding which of the submissions best meets the needs of the research agenda at the time. NREC also run a large 'open' category for investigator-driven proposals, which regularly attract around 25% of the available funding in each round. Quality is built in throughout the research process, not simply as an 'add on'. NREC research projects are required to produce up to two interim reports before the final report. At each of these stages, reports are independently peer reviewed and researchers are obliged to modify their work in the light of reviewers' comments. Finally, NREC places a very high priority on wide dissemination of research results through a variety of media. This issue is discussed below. Table 3 summarises the differences between supply and demand side approaches to research.

Table 3: Supply and demand side approaches to research

Supply side	Demand side
Investigator driven	User driven
Few priorities for research	Priorities set through a national strategy
Quality control at proposal stage	Quality control exercised throughout research process
Upfront peer review	Ongoing quality process
No dissemination	High emphasis on dissemination

Making use of research

Perhaps the most striking difference between the NREC program and other national competitive granting agencies is the emphasis on dissemination and the utilisation of research. Arrangements for dissemination are an integral part of the NREC contract with ANTA, and a substantial proportion of the funds available go towards ensuring that the message from research gets out to the VET community and to those who will use it. As Robinson and Hayman (2000) have described, the process of dissemination goes well beyond the traditional research report. In particular, effective dissemination involves the synthesis of research results into short publications that can be easily accessed and used by those in the sector. This is also an approach that is being developed by similar research agencies in other parts of the world, including the National Dissemination Centre for Career and Technical Education in the United States. NCVER has developed a number of these synthesis publications.

Research at a glance: a short publication on research themes, which summarises the research and statistical information on particular theme areas such as apprentices and trainees, student outcomes, early school leavers and so on.

Insight: a regular 'newsletter' summarising the findings of key VET research released by the NCVER or other research bodies.

Email newsletter: an electronic newsletter with advance warning of important research just or about to be released.

These publication-based forms of dissemination can be very effective in reaching large numbers of people quickly. However, they are essentially a passive means of dissemination. These media require the user to come to the research, rather than engage with the message. Active dissemination, on the other hand, brings the research to the subject and attempts to engage the user. This involves a two-way process of encouraging debate about the results of research, and leading people to think about and integrate the message from research into their work. For this to occur, face-to-face communication on research is essential. Thus, NCVER has sponsored small-scale seminars and briefings for researchers and decision-makers in the sector, which allow the results of research 'clusters' to be discussed and explored. Larger, public forums organised around research themes such as the impact of competency-based training or the implications of the changing nature of work for VET have also been very successful in bringing diverse groups of stakeholders together to investigate what research means for the ways in which they operate.

However, dissemination is only part of the answer to the question of how research is utilised in VET. Making people aware of research findings or of the value of research in general does not ensure the utilisation of specific research findings, particularly in the politicised environment of policy-making. Here, ways have to be found to 'inject' appropriate research into the policy-making process. This requires researchers to gain credibility and access to decision-makers that will introduce research into policy processes. An example of injecting research into policy making in this way is provided by the Commonwealth government's National Skills Initiative since 1999. This process involved the establishment of a series of industry-led working parties to investigate reported skills shortages in traditional trades areas such as metals, electro-technology and rural occupations. Organised through the federal Department of Education, Training and Youth Affairs, the working parties comprised industry representatives and government officers. NCVER was invited to these working parties as a source of independent research-based advice (National Centre for Vocational Education Research 2000). Drawing upon research carried out on the apprenticeship and traineeship system as well as on the changing nature of work, returns to training investments and on the implications of demographic change for VET, NCVER were able to exert a critical influence on the deliberations of the working parties. Instead of commonly held assumptions about the training system dominating discussions on the sources of and answers to perceived problems of skills shortages, the research input was able to locate the nature of the problem more effectively and demonstrate that new solutions other than taking on more apprentices or opening up the immigration program were needed.

In a new applied field of research such as VET, it is imperative that researchers find ways such as this of getting the research message to the right people at the right time and in a way they can digest quickly and use. In line with the changing nature of work, research needs to be based on a 'just-in-time' principle, rather than the current 'just-in-case' principle that dominates so much of the supply-side approach to research.

The quality of VET research

If the last seven years since the formation of ANTARAC have been concerned with improving the quantum of research in VET, the next few years need to be concerned with the quality of research. As industry discovered in the 80s and 90s, consumer preference is determined by quality rather than by quantity or price. At the risk of drawing heretical parallels with the world of everyday work, research may be seen simply as another service with its own set of consumers. For research to be used by its potential consumers it has to be both relevant and of high quality. In the NREC program, relevance is assured through the directed nature of the program. However, quality is a far more contentious issue. From the research consumer's point of view, conventional measurements of the quality of research can often be quite meaningless.

In a recent review of the quality and relevance of Australian educational research, Phelan (2000) concludes that Australian researchers are highly productive and highly relevant in their work. With 0.3% of the world's population, in 1995 Australian educational researchers produced 4% of the world's research published in major international journals, but with citation rates that vary between 2.5% and 5%. This suggests a high general level of production of international quality research. But this means little for the quality of individual research projects, many of which go unreported in the international educational journals or take years to get into print.

A more rigorous approach to the problem of quality in educational research was taken by the controversial review of educational research in Britain undertaken by Ofsted, the Office for Standards in Education (Tooley and Darby 1998). The review was in response to comments by Professor David Hargraves (1996) that in Britain there was a considerable amount of:

> Frankly second-rate educational research which does not make a serous contribution to fundamental theory or knowledge; which is irrelevant to practice; which is unco-ordinated with any preceding or follow-up research; and which clutters up academic journals that virtually nobody reads. (p 7)

Although the Ofsted review was concerned with general educational research, its method may be applied to the more specialised field of VET research. Examining more than 200 articles published in the top four British educational refereed journals over the period 1994-1996, the review highlighted four key problem areas for quality in educational research. These problems have also surfaced in NREC-funded research and proposals for research in the last four years.

Firstly, there is the problem of partisanship, whereby a researcher brings preconceptions to the research usually based on prior emotional or political judgements. These preconceptions may impact on the conduct of the research, biasing the methodology used by the researcher, but often they surface in the analysis of otherwise high quality data. In this situation, researchers draw spurious conclusions from data that does not support them. These problems are often picked up during the review of final reports of NREC, and require researchers to either review their analyses or to remove partisan comments from an otherwise objective commentary.

Secondly, there are problems concerned with methodology. This is the most common area for problems in the NREC corpus. Methodological problems begin at the proposal stage of the NREC process, with a large number of proposals simply not elaborating methodology satisfactorily or proposing methodologies that would not meet the research requirements posed by the questions to be investigated. Methodological inadequacy is the most common reason for failure to obtain an NREC grant. However, methodological problems can often plague projects through their lifetimes. The Ofsted review (1998), in a neat side-stepping of the issues of paradigms in VET research (McIntyre 1998), divided educational research into empirical - gathering and analysing primary data, and non-empirical - developing ideas or critiquing work based on previous research (not gathering primary data). They further divided empirical work into:

> Quantitative research: concerned with the acquisition and interpretation of data which can be analysed using statistical techniques and
>
> Qualitative research: involving the gathering of evidence that explores the significance, meaning, impact, individual or collective interpretation of events.
> (p 10)

Table 4 presents an analysis of NREC projects funded since 1997 by methodology. Two other categories have been added, representing the mixed methodologies that have become more common in recent years, involving both quantitative and qualitative approaches.

Table 4: Research funded by NREC – methodological type (1997-2000)

Year	Quantitative	Qualitative	Mixed - mostly qual.	Mixed - mostly quant.	Non-empirical	Total
1997	3	12	2	7	12	36
1998	2	6	1	2	11	22
1999	7	9	3	3	12	34
2000	3	12	2	6	8	31
Total	15	39	8	18	43	123
%	**12**	**32**	**7**	**15**	**35**	**100**

Of the empirical work, it is interesting to note that qualitative work predominates – a finding similar to the Ofsted survey of the UK research. However, quality issues arise with both forms of work. In quantitative work, survey design is the most frequently encountered problem in NREC projects. Reviewers and - where used - reference groups will usually pick up this problem early on, and with some work, survey design can be improved to ensure the quality of the methodology. In qualitative work, lack of rigour through inadequate triangulation is a key problem with NREC work, as it is in the Ofsted survey of the British research. There is still a tendency to rely on one method of data gathering such as interviewing, without attempts being made to verify the data gathered through alternative means. Typically this might take the form of relying on managerial accounts of training practices at the enterprise level, without verifying these often inflated accounts with workers who are the target of the training. Case studies of other organisations including providers are also often similarly flawed, rendering generalisation difficult.

The use of mixed methodologies has become increasingly important in NREC research. These usually involve both a quantitative and a qualitative element. Typically a mixed method approach would involve both surveys and case studies or interviews, and focus groups that support or develop the parameters for a more generalised survey. These are often very successful ways of approaching research questions. The quantitative element provides measurements of the extent of phenomena, whilst the qualitative element can provide explanatory power at the individual level. However, problems arise with mixed method approaches when the elements are not sufficiently complementary. Here epistemological questions come into play. The philosophical foundations of a positivist survey approach are very different from the interpretive roots of case studies or one-on-one interviews, and it is often not enough to simply include both quantitative and qualitative approaches in the one project without giving thought to how the two approaches can work together. Issues that arise from surveys may not be suited to further exploration from a more qualitative angle. As an example, the understanding that respondents may have of particular phenomena when filling in a survey may alter quite quickly in the course of a conversation with an interviewer, so that the interview is exploring a different phenomenon from the survey. These issues of compatibility of interpretation and data plague mixed method approaches, and are often not sufficiently addressed by researchers in their proposals or in the final analysis of data for the project.

Thirdly, the Ofsted review discusses non-empirical research. From the table it is clear that non-empirical work has featured very strongly in the NREC program since its inception. This work is divided broadly into two types. Firstly, there are reviews of literature and research that summarise the extant research on particular themes and tease out the principal contours of the body of research - ie are largely interpretive in nature. The second type is work that presents a new analysis of existing data sets to answer questions that the original research did not set out to examine. This work is largely quantitative but is non-empirical in the sense that it does not involve data gathering. The Ofsted review noted a number of problems with non-empirical studies, including contradictory arguments, insubstantial literature reviews, going beyond the evidence in argument and the uncritical acceptance of the pronouncements of 'great thinkers'; particularly postmodernist thinkers such as Foucault and Lyotard. In NREC work, perhaps the most common problem has been the inadequacy of literature reviews. This is usually the result of an overwhelming focus on purely educational research and literature in a field that is increasingly interdisciplinary. Thus, a lack of understanding of labour market theory may result in an oversimplified discussion of youth transitions from education to work. Similarly, a lack of understanding of organisational theory and behaviour can lead to very unrealistic assessments of the role of employers in providing training to their workers. Labour market and organisational theory are well-developed fields of inquiry with their own voluminous literatures. In an interdisciplinary field such as VET, it is important that researchers have an understanding of what other research traditions have to offer in exploring the key issues and questions that beset the field.

Finally, Ofsted addressed the focus of the research - ie how the research relates to policy and practice. Here NREC has been successful in its demand side approach. The users of research, particularly at a policy level but increasingly with input from the practitioner community, set the research agenda for NREC so that it is increasingly relevant for both policy and practice. However, more can be done in this area. NREC research has tended to take a rather orthodox approach to research funding, with the bulk of projects funded for 12-18 months (with the exception of the shorter consolidation studies). This is both too short and too long a timeframe for VET research. On the one hand these projects present analyses of issues in a rather static way; research that takes place over a relatively short period of time and captures the essence of a problem or issue at a point in time - ie a snapshot approach to research. This does not allow for longitudinal approaches to issues so that data can be gathered over a period of time and chronological patterns discerned. On the other hand, the 12-18 month cycle is often too long for policy makers who have to react quickly to changes in the policy landscape, and need digests of research on critical issues to help guide the formulation of new approaches. Thus, what is needed is a bifurcation in the research effort. More long-term, longitudinal research needs to be undertaken to track the development of issues over periods of time so that the true patterns in phenomena can be discerned. At the same time, we need to be prepared to undertake short-run research, often synthesis work, that will help to gather together the lessons of research on particular topics that can be fed into the policy process described earlier.

In this sense we need a cumulative approach to VET research. Too often, research proposals tend to ignore work that has been completed elsewhere, leading to a duplication of research on issues of importance. More care needs to be taken to ensure that research proposals build on previous work, not duplicate it. Tools such as the VOCED research database, that captures research work quite efficiently, can play an important role in this process.

The new national research strategy to VET

The new national strategy, now published on the NCVER website (http://www.ncver.edu.au), attempts to come to terms with some of these issues (National Centre for Vocational Education Research 2001). The strategy directs the work of the NCVER and the National Research and Evaluation Committee. However, it also covers the broader field of VET research in Australia. The work programs of the four ANTA key centres/partners are described and the links to the work of NCVER/NREC discussed, so that a broad picture of the VET research effort is presented. The strategy covers the period from 2001-2003, coinciding with the ANTA national strategy for VET, *Bridge to the future*. The strategy defines 10 key areas for VET research:

1. The economics of vocational education and training
2. Lifelong learning and the social and community impact of VET
3. Innovation and the skills of the Australian workforce
4. Transitions from education to work
5. The vocational education and training provider
6. The quality of teaching and learning
7. Outcomes of vocational education and training
8. Equity in vocational education and training
9. International comparisons of vocational education and training
10. The future development of the VET sector.

The strategy concludes with a discussion of the international context of VET research. VET research is becoming increasingly internationalised. This reflects the importance that VET has assumed in the developed world in the last ten years, and increasingly in developing countries that are improving their skills base in order to foster industrial development. The impact of globalisation on labour markets means that Australia now competes for skilled labour directly with other countries. At the same time, Australia is increasingly an exporter of VET, particularly in the Asian region. Thus the VET system in this country is inextricably bound to developments in other countries. The activities of multinational corporations, which dominate much of the Australian economy, place demands on the VET system to meet their global requirements for skilled employees. As a result, governments throughout the world are looking to research and evaluation to underpin their responses to the key policy challenges in VET. Despite international differences in the operation of VET, these challenges are remarkably similar from one country to another and include:

- Improving transitions from education to work
- Reforming the financing of VET systems

- Creating flexibility in the provision of VET to meet the changing requirements of the labour market
- Improving the level of continuing training, especially that provided by enterprises
- Reforming systems of entry-level training
- Improving the provision of training for adult and older employees
- Responding to the emergence of lifelong learning.

These key areas feature in the VET research and evaluation programs of most countries, particularly in the developed world.

There is a strong tradition of comparative research in the social sciences in Australia. This is also true in VET research and evaluation. In recent years both ANTARAC and NREC have funded research that has attempted to put VET in Australia into an international perspective. There is a need to increase our comparative research activities to inform better policy development. But it is important to remember that comparative research is a two-way process; Australia has much to learn from other countries, but the rest of the world has also much to learn from developments in Australia. The significant international interest that continues to be shown in the Higher Education Contribution Scheme is a good example of the latter.

Australia also plays an important role in international agencies concerned with VET. Australia has been a key player in the development of UNESCO's technical and vocational education initiative, UNEVOC. There are three very active UNEVOC centres in Australia, which ensure that Australian VET research plays an increasingly important role in the international VET community. Australia also plays a significant role in the Organisation for Economic Cooperation and Development (OECD). The OECD has funded a number of very important and influential comparative research projects in the area of vocational education and training, and Australia has benefited from its participation in this large-scale comparative work.

Australian VET researchers and research centres are increasingly involved with their overseas counterparts. The formation of the International VET Association (IVETA), which held its annual conference in Sydney in 1999, is a good example of the growing international VET research community and of the important role that Australian researchers play in it. Many Australian VET research centres have established strong ties with similar centres overseas. NCVER has played an important role in this regard with its system of Memoranda of Understanding with key international VET research agencies, such as the South-East Asian Ministers for Education Organisation vocational education centre in Brunei (SEAMEO VOCTEC); Colombo Plan Staff College (CPSC) for Technician Education based in the Philippines; the Central Institute for Vocational and Technical Education in the People's Republic of China (CIVoTE); the Bundesinstut fur Berufsbildung (BIBB) in Germany; the European Centre for the Development of Vocational Training (CEDEFOP) of the European Union; and the Korean Research Institute for Vocational Education and Training (KRIVET). Such agreements lead to the exchange of research information and the development of joint comparative research between the centres. Many Australian VET researchers also maintain extensive links with international colleagues which form the basis for the increasing level of international VET research undertaken in Australia.

Australia now boasts a world-class national VET research and evaluation program. Fragmentation, disparate funding sources and a lack of national vision are often characteristics of much VET research carried out internationally. In Australia, the existence of a comprehensive national VET research funding program guided by a national research and evaluation strategy lends Australian VET research a level of coherence, relevance and consistency which is often lacking in overseas programs.

VET research in the future

We have discussed a number of changes that have occurred within VET research since the intervention of ANTA in the early 1990s. Research has become more thematic and less fragmented than in the past. The two national research strategies have identified themes and priorities around which research work has been organised in clusters, so that bodies of research work have been constructed around key questions for the VET sector. The four key research centres/partners have also developed a theme-based approach to research with their workplaces organised around key themes and questions, such as vocational learning in the case of RCVET, or the experiences of students in the VET system in the case of the Centre for Post-compulsory Education and Training.

Cycle times for research are also slowly changing. The traditional 12-18 month project-based model of educational research suits neither the needs of the busy policy-maker and practitioner nor the need for in-depth investigation of important issues over long periods of time. Snapshot research only leads inevitably to conclusions that stress the importance of more research and more funding for the individuals suggesting it. Longer-term and longitudinal research programs need to become more typical of our empirical work. A good example of this is the field of apprenticeships and traineeships which has been a major theme for NREC and NCVER research in the last 18 months. This cluster of work has produced some remarkable insights into the strengths and the weaknesses of Australia's apprenticeship system, but it has also clearly shown that key areas in which research is lacking is in the tracking of apprentices and trainees through their training and later in the workforce. We need to know more about what happens to those who graduate from the system, so that we can speak with confidence on the career prospects for apprentices and trainees and how they compare with other forms of education and training.

Research is also becoming more collaborative. Large research teams are now becoming standard in NREC projects. The numbers of projects carried out by sole researchers or by small groups of two or three are disappearing and being replaced by larger teams of researchers drawn from an increasingly diverse background. NREC, as ANTARAC before, has encouraged this development over the years. Collaboration is now cross-institutional with different research groups and centres regularly working together on projects that draw upon their collective expertise. Research is increasingly cross-sectoral as discussed earlier in this paper, with researchers from the VET sector working with consultants and university-based researchers on projects that cross institutional and sectoral boundaries. Research is also, slowly, becoming internationalised. Most VET research centres and groups around the country have developed international links with similar groups overseas in recent years. Some recent NREC research has drawn on international comparisons and has involved researchers from different countries collaborating to produce more internationalised commentaries on key questions for VET. However, collaboration - though it may enable a wide range of different skills to be brought to bear on research - brings its problems. The management of collaborative teams, particularly those scattered over long geographical distances or involving researchers from different institutional backgrounds, can be very difficult and demand new levels of project management skills from researchers.

This latter point highlights the changing nature of research work itself. In recent years much VET research has highlighted the significance of the changing nature of work for the policy and practice of VET. Some of the key findings about the way in which work is changing include:

- The increasing globalisation of the labour market
- The increasing casualisation and outsourcing of work
- The changes in organisational forms to produce an emphasis on teamwork
- The decentralisation of management functions to other workers
- The demand for new skills other than job competency, including communication skills, ability to work with others, problem-solving etc.

Each one of these changes can also be traced in the world of research work. As noted above, research work is also becoming more globalised. Research is no longer, if it ever was, carried on by the full-time professional researcher. Many of those involved in research are undertaking this work as part of a range of other tasks in which they are involved. Many researchers are employed on a casual basis and an increasing amount of research work is outsourced to those with specific sets of skills. Also, as we have already noted, research work is becoming more collaborative and team-based, and this gives rise to an increasing demand for effective project management. Researchers are no longer specialised experts bringing their skills to bear on interesting problems, but are increasingly managing the specialised work of others, with the final responsibility for bringing the project together in a way that meets the needs of the research funding body. This calls for new sets of skills beyond those of the traditional researcher. Researchers need to be able to use a variety of research methods - crossing the quantitative/qualitative divide. They need to be able to work with funding bodies and other clients to produce research that is focused on research need. They need to able to communicate with a wide variety of audiences in ways other than writing for academic journals, so that the research has impact.

These define a much broader set of skills for the VET researchers than those taught in the traditional training programs for researchers, such as PhD programs at universities. These programs, which still dominate our thinking on research training, produce highly specialised researchers with only a limited set of technical research skills and a highly specialised content knowledge in what could be described as an apprentice/craftsperson model of research. In many cases, however, the 'new' researcher needs a different , sometimes opposite, set of skills. Table 5 sets out the skill differences between the apprentice/craftsperson researcher and the new researcher.

Table 5: The old and new researcher

Apprentice/craftsperson	**New researcher**
Discipline based	Interdisciplinary
Specialist knowledge	Generalist within a discipline area
Skilled in one method	Able to use multi-methods
Self-management	Able to manage others and their work
Focused on development of theory	Focused on relevance to policy and practice
Purist	Negotiator/optimiser
Academic writing skills	Broad-based communicator
Meet standards of peer review	Meet standards demanded by users

Outside the PhD program there are no real research training routes. Many involved in VET research have come to research from other careers without much formal research training. Many have the qualities and skills of the new researcher, but by accident rather than design. Our formal research training programs in the universities continue to produce the specialised academic rather than the multi-skilled researcher that the field increasingly demands. Few of these graduates have the skills necessary to acquire research funding and make a serious contribution to VET research. This is not to mention the highly variable quality of the research that is produced though PhD programs, which renders any notion of standards in research training unusable in a practical sense.

Thus, the VET research community faces a challenge in developing the next generation of researchers. The research on the changing nature of work and lifelong learning also highlights the importance of demographic change in driving changes to education and training. This is also true in research. The VET research community is greying and it is not clear where the next generation of researchers will come from. This confounds the problem of the research training that sector also faces. An important function for AVETRA in the coming years will be the ability to identify new pathways for emerging researchers and fashion programs of research training that teach researchers the real skills that they will need to become the research leaders of the next generation.

Conclusion

This paper has outlined some of the more important changes that have occurred in VET research in recent years. In general, increased funding through ANTA has been highly successful at increasing the overall quantum of research. But it is the quality of that research that will determine whether governments continue to fund the research effort.

Relevance, timeliness, objectivity and methodological integrity are the hallmarks of high quality research in applied fields such as VET. This involves both users and researchers becoming much more involved with the research management process. Users need to clear about what issues need to addressed and the standards they expect from that research. Researchers need to examine their own practices to ensure that research is meaningful and builds on the work of others. This more demanding regime for VET research demands new skills from researchers and the development of research training programs that ensure the continuing supply of those skills into the VET research community.

References

Hargraves D H (1996) Teaching as a research-based profession: possibilities and prospects. Teacher Training Agency Annual Lecture, Mimeo.

McDonald R, Hayton G, Gonczi A and Hager P (1993) No small change: proposals for a research and development strategy for vocational education and training in Australia. Canberra: Vocational Education, Employment and Training Advisory Committee.

McGaw B, Boud D, Poole M, Warry R and McKenzie P (1992) Education research in Australia. Report of the review panel, strategic review of research in education. Canberra: Australian Government Publishing Service.

McGaw B (1999) Impact of national reviews of education research policy. In C Selby-Smith (ed) The impact of R&D on VET decision-making. Adelaide: National Centre for Vocational Education Research.

McIntyre J (1998) Research in adult education and training. In G Foley (ed) Understanding adult education and training (second edition). Sydney: Allen and Unwin.

National Centre for Vocational Education Research (1997) A national strategy for research and evaluation in vocational education and training: 1997-2000. Adelaide: National Centre for Vocational Education Research.

National Centre for Vocational Education Research (2001) A national strategy for research and evaluation in vocational education and training: 2001-2003. Adelaide: National Centre for Vocational Education Research.

Phelan T J (2000) Is Australian educational research worthwhile? Australian Journal of Education, vol 44, no 2, pp 175-194.

Robinson C and Hayman S (2000) Doing the research is only half the job: the impact of VET research on decision-making. Vocational Education and Training for Life Long Learning in the Information Era - IVETA Conference, Hong Kong, 6-9 August.

Tooley J and Darby D (1998) Educational research: a critique. London: Office for Standards in Education.

Contact details

Dr Andy Smith
General Manager - Research and Evaluation
National Centre for Vocational Education Research
PO Box 115
Kensington Park
South Australia 5068
Ph: +61 8 8333 8404
Fax: +61 8 8333 0854
Mobile: 0414 584 182
Email: andys@ncver.edu.au

A foot in both camps: school students and workplaces

Erica Smith
University of South Australia
Annette Green and Ros Brennan
Charles Sturt University, New South Wales

It is now uncommon for young people to leave school without having had experience in workplaces. Sometimes such experience is arranged by schools - through work experience, structured work placements or other programs. Increasingly young people are also getting workplace experience as part-time student workers. This experience may be quite extensive. A research project funded by the National Research and Evaluation Committee has been examining the different types of learning experienced by students in the different modes of experiencing the workplace. The project also examined the question of whether certain students find access to such experiences more difficult than others do.

These questions are of vital importance, because workplace experience assists young people in their transition from schools to full-time work; and also because the foundations for lifelong learning through work may be set down in early workplace experiences. It is therefore essential to have some understanding of the nature, extent and methods of workplace learning for school students. This paper presents the findings of the project.

An important development in the post-compulsory education system has been an increased involvement of secondary school students in learning in workplaces; both in work experience and vocational placements in VET in Schools programs. In addition, an increasing number of school students are now in formal paid employment, including around 4000 in employment as part-time apprentices and trainees (MCEETYA 2000). These changes encourage debates including: the suitability of school students having paid work; the desirability of recognition for the skills gained in paid work; inequities of access to all types of workplace experiences; and whether work experience and placements encourage an uncritical acceptance of workplace values which need to be challenged. However, there has been little explicit examination of what students learn in workplaces and how they learn it. This paper gives some of the results of an NREC-funded project, which examines the extent and nature of learning that students in years 10, 11 and 12 gain from their experiences in workplaces (Smith and Green, forthcoming). Relevant literature will be examined briefly as well as key findings from a survey carried out among students from years 10, 11 and 12 in thirteen schools, and the results of follow-up focus groups and interviews with students, teachers and employers in New South Wales (NSW) and South Australia (SA).

Literature review

Part-time work

The proportion of school students who work part-time is generally agreed to be increasing, although the extent of students working is unclear. Somewhere between 30% and 50% of Australian school children of working age are generally believed to have formal part-time work (Australian Bureau of Statistics 1997[1]; Robinson 1999; Wooden 1998; Yap 1998). Much of the literature on students working (especially the American literature) revolves around whether it is a 'good thing' (Hotchkiss 1986; Hull 1999) or a 'bad thing' (Greenberger 1988). Robinson (1999) and others stress the link between students working and subsequent success in finding full-time work, although it is not clear that one causes the other. A small number of writers have been concerned about equity of access to part-time work (Griffin 1985; Yap 1998)

There has been little research on training and learning among student workers. It is usually agreed that students working encourages the development of general, transferable skills (Hull 1999). However, there has been little attention paid to how these or other skills are actually learned.

Work experience and vocational placements

It is often difficult to untangle work experience from structured work placements in the literature, with the terms having different meanings in different educational systems. Work experience is generally used to refer to the typical 'finding out about work' week undertaken by Australian students in years 10 or 11 (Smith and Harris, forthcoming). During the late 1980s and early 1990s when training reform meant that skills development rather than work familiarisation became more favourably regarded (Sweet 1995), work experience became the Cinderella of student workplace experiences. Vocational placements are increasingly common now that the vast majority of Australian schools offer VET in Schools programs. In 2000, 90% of Australian schools offered such programs, involving over 130,000 students (MCEETYA 2000). However, not all VET programs require placements (MCEETYA 2000).

The major themes in the literature appear to be:

- 'Enthusiastic' literature extolling the virtues of work placements (eg Frost 2000)
- Concern with the role of employers and availability of placements (eg Figgis 1998a; Miles Morgan Australia 1998; Misko 1998; Smith and Smith 1996)
- Resourcing issues, including staff development of school teachers (eg Keating and Zbar 1994; Ryan 1997; Sweet 1995)
- A large amount of literature on 'how to' administer programs (eg Misko 2000)
- Critical literature (eg Petherbridge 1997; Shilling 1989; Wellington 1992)
- Scoping literature (eg Ainley and Fleming 1995, 1997; Malley et al, forthcoming).

There is relatively little literature on the learning outcomes of either work experience or work placements. Athanasou (1996, p 8) points out that 'school-industry programs' may have 'positive experiential by-products', as often cited in the 'enthusiastic' literature, but that more work needs to be put into determining the *intended* consequences of such programs. Three studies which did investigate learning are those by Figgis (1998b) in Australia, Stasz and Kaganoff (1997) in the US and Petherbridge (1997) in the UK.

Outstanding issues from the literature

The literature review revealed the following major points, which raised implications for the current study.

There is little literature about student-workers in Australia, and the data from the Longitudinal Survey of Australian Youth (LSAY) is dated (1992). A scoping study to establish the current extent and nature of part-time work for school students is needed.

There is a large body of literature, both Australian and overseas, on work experience and work placements, but much of it falls either into the 'scoping' category or the 'enthusiastic' category. There has been relatively little empirical investigation of what school students actually learn in workplaces.

There is some concern over equity of access to part-time work and to work experience and placements, but there is little empirical research in this area.

Several writers allude to *the superiority of placements compared with traditional work experience,* but more exploration of the differences is needed.

There is still some confusion over the outcomes intended from both work experience and structured work placements.

There is growing interest in capturing the learning from part-time working, although evidence suggests that policy-makers are more interested in this than students (Billett 1998; MCEETYA 2000).

Interviews with key stakeholders

At the start of the research process, interviews were held with policy makers, employers and researchers in the area. These interviews confirmed many of the findings from the literature review. Many key stakeholders were struggling with implementation issues such as funding, staffing, availability of both work experience and vocational placements and equity issues. Learning, when discussed, was seen as very different from school-based learning. Stakeholders believed VET programs may offer students the opportunity to excel with alternative curriculum and different experiences. Various factors have caused both State and Commonwealth to increase the offering of VET subjects in senior school and include these subjects in senior certificates.

Survey method

The project steering committee, stakeholders and officials from DET (NSW) and DETE (SA) assisted in selecting the schools for administration of the survey. The sample of 13 schools represented public and private schools, rural and urban locations, and students from a range of socioeconomic and ethnic backgrounds. At the selected schools, all students in years 10, 11 and 12 were invited to complete the questionnaire, yielding 1451 useable responses. The response rate was much higher in non-government schools than in government schools, despite having selected more of the latter. The results report on about half from each sector. The survey was administered in the second semester, when many students in year 12 were unfortunately not available because of HSC (NSW) and SACE (SA) studies.

The survey instrument contained five parts: personal information; overview of the student's experiences in workplaces; detailed questions about work experience; detailed questions about one paid job; detailed questions about one structured work placement; and learning and training questions. Students were asked to compare the different types of experiences, and this was investigated further in the case studies.

Case study method

After the survey, nine case studies were undertaken to provide qualitative data. Five were held in schools in NSW and SA. In each school, one focus group consisted of 8-10 students who had participated in at least two workplace activities out of the three: work experience, vocational placements and paid work. A second group in each school was made up of VET teachers, a careers adviser and the Principal or her/his nominated representative. Case studies were all in public schools, to increase the representation of public schools in the project. Because it was difficult to access year 12 students during the course of the case studies, as they were carried out in the second half of the academic year, a special focus group of year 12 students was also convened. Four groups of employers were also interviewed. A particular effort was made to incorporate discussion of vocational placements in this qualitative phase of the research, since the survey had produced only a limited response from students undertaking placements.

Findings from the project

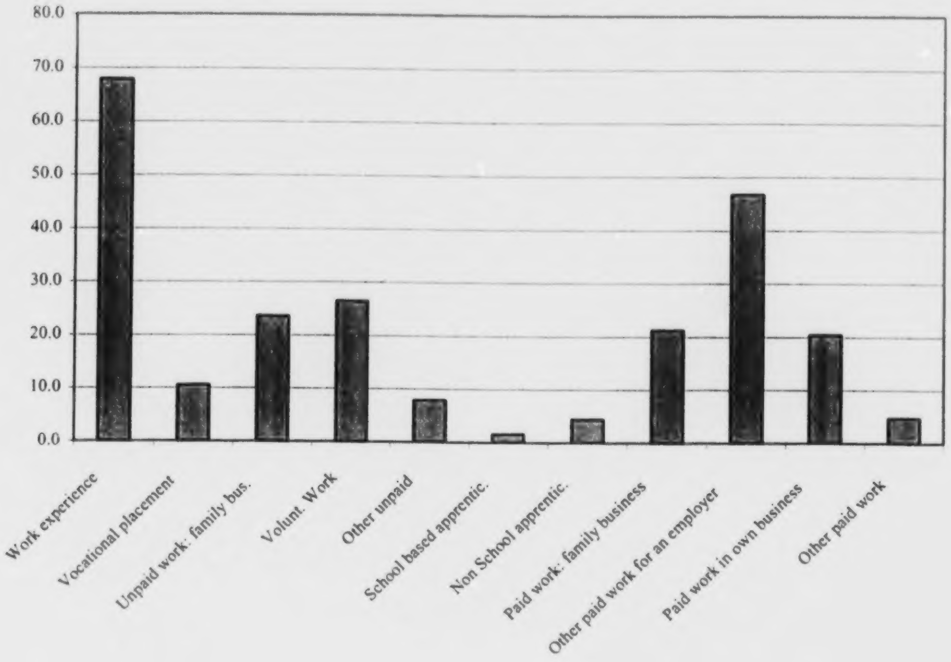
This paper focuses on the project's first two research questions:

1. 'What is the extent and nature of the way in which years 10, 11 and 12 school students experience the workplace?'
2. What is the nature and relative importance of learning gained from these experiences?

The extent and nature of the way in which years 10, 11 and 12 school students experience the workplace

The paper can only present a selection from the huge amount of data gathered in the survey. As the process has revealed a dearth of information on learning from work for school students, this takes priority. Qualitative data from the focus group interviews is included. The modes of experiencing the workplace by school students in years 10-12 is shown in Table 1.

Table 1: Involvement in different modes of experiencing the workplace (% of all students)



The results show that just over two-thirds of the respondents had done work experience, but only 10.5% had done vocational placements. There were very small numbers involved in part-time apprenticeships and traineeships, with more of these students arranging their own (4.4%) than participating in schools-based programs (1.6%). 46.7% of the students had 'ordinary' part-time work for an employer and one fifth had their 'own business', which appeared predominantly, but not exclusively, to be babysitting. This data was also analysed by equity groups.

The case studies indicated that most school students in years 10-12 had a considerable amount of workplace activity.[2] Work experience was almost universal in the schools in the case studies; vocational placements were, of course, only undertaken by students who had selected VET courses. Paid work was less universal; generally, schools estimated that around half of students of working age had jobs, as was found in the data.

Table 2 shows the industry area[3] in which students' workplace activities took place. The students were asked to answer for their *longest-lasting* period of work experience, paid job or vocational placement. Some students had difficulty allocating their responses to an industry area; where possible, researchers made appropriate allocations during the data entry process.

Table 2: Industry area of workplace activities

	Work experience		**Paid work**		**Vocational placement**	
	Count	%	Count	%	Count	%
Farming, forestry, fishing, mining	31	3.0%	38	5.1%	1	1.4%
Manufacturing	84	8.2%	24	3.2%	16	21.6%
Building including electrical and plumbing	45	4.4%	14	1.9%	7	9.5%
Retailing	183	17.9%	237	31.7%	9	12.2%
Fast foods, cafes, or restaurants	71	6.9%	233	31.2%	27	36.5%
Cultural, recreational or sporting	63	6.2%	45	6.0%	-	-
Banking/real estate/insurance	34	3.3%	6	0.8%	-	-
Government administration, including education and defence	141	13.8%	3	.4%	5	6.8%
Health, personal and community services (including child care)	203	19.9%	29	3.9%	5	6.8%
Communications/media/computing	118	11.5%	16	2.1%	1	1.4%
Babysitting	n/a	n/a	51	6.8%	n/a	n/a
Newspaper delivery	n/a	n/a	22	2.9%	n/a	n/a
Other	49	4.8%	29	3.9%	3	4.1%
Total	**1022**	**100.0%**	**747**	**100.0%**	**74**	**100.0%**

There were clear differences between paid work and work experience. As might be expected, 62.9% of paid student workers worked in retail or fast food outlets, cafes and restaurants, while only 24.8% of work experience students were in those industries. Work experience placements were far more likely than paid work to be in 'career'-type industries such as education, health, personal and community services. These are industries which do not offer much opportunity for part-time teenage employment. Vocational placements showed a different pattern again. The relatively small number of placement students were clustered in certain industry areas. Retail and fast food/cafes/restaurants covered 48.9% of students, so the industry distribution was not unlike that of paid work.

Many of the employers in the focus groups and interviews had well-developed programs for work experience and vocational placements, and took large numbers of students each year.[4] These employers obviously spent much time liaising with schools and local placement coordinators organising programs for students. One employer commented that block periods for vocational placements would enable her to fit in more work experience students in the year, as students on one day a week placements meant those weeks were not available for work experience. She was clearly intent on being as accommodating as possible to students wishing to experience workplaces. In general, the employers displayed great willingness to help young people and their schools, and derived satisfaction - in most cases more satisfaction - from vocational placements than from work experience.

The survey also examined how much responsibility students had in their experiences of work. Paid work offered the greatest opportunities for responsibility, which could simply be related to the length of time spent in that job. Work placement offered more opportunity than work experience for responsibility, but still below paid work. While the fact that some students were only allowed to observe during work experience is to be regretted, the percentage of 4.5% is lower than some commentators have suggested. The quality of what was observed is also of some importance; one student on work experience observed a woman giving birth, which is obviously a profound and important learning experience.

Section 3 of the questionnaire included general questions concerning paid work. These related to how the students found out about their job; why they were working; their employment arrangements; and issues about fitting in their school work around their job. Informal methods of job seeking were the major means of finding work. 30.9% found their jobs through a family member; 21.5% through a friend; and 20.6% approached the employer directly. Only 6.9% saw the job advertised in the newspaper and 1.7% on a notice board. 4.9% found out about the job through the school and 13.4% used 'other' means of finding out about the job. The most important reason for seeking the job was overwhelmingly to get spending money. 57.6% cited this reason; 13.1% cited 'general experience of work' as the most important; and 9.0% 'to be more independent'. 9.3% of students worked mainly for money for living expenses; 4.2% because they would enjoy it; and 4.0% to get specific experience in an industry they thought they might work in later.

The case studies showed that schools, local coordinators and employers displayed great commitment to organising work experience and vocational placements for school students. Work experience was an almost universal part of school students' curriculum, with only special circumstances preventing participation. Rural schools appear to offer a more flexible and tailor-made approach to students in relation to work experience and vocational placements. This may relate to perceived difficulties in school-to-work transition and, related to this, to perceived difficulties in finding part-time jobs to gain experience of the workplace. In fact, the rural students did not seem to have a lower participation in paid work than the metropolitan students. Some students committed a great deal of time to their part-time jobs while others' participation was only sporadic. Student workers were seen as an integral part of many companies' workforces, but in general no special attention was paid to them compared with adult workers.

Employers had comments and criticisms about the way work experience and vocational placements were organised by the schools. They wanted school students to be better prepared, and generally felt that the presence of a third party (for instance Compact coordinators in NSW) assisted students in their preparation and enabled better matching of students to placements. Several of the employers also employed part-time student workers but did not appear to see much link between this and other programs with school students.

The nature and relative importance of learning gained from these experiences

What students learned

The first aspect to consider is what the students learned in their time in the workplace. Tables 3 and 4 report on students' perceptions of their generic and 'employability' skills.[5]

Table 3: 'Did you develop the following general skills in this period of work experience?' (by work experience and paid work)

	A lot		Some		A bit		Not at all	
	Work exp	Paid work	Work exp	Paid work	Work exp	Paid work	Work exp	Paid work
Communication/writing	7.4%	13.0%	21.7%	15.2%	19.0%	18.1%	51.8%	54%
Verbal communication	43.9%	63.8%	31.8%	20.8%	18.0%	9.9%	6.4%	5.5%
Planning & organising	22.3%	34.0%	35.8%	35.5%	25.6%	20.1%	16.4%	10%
Working in teams	34.3%	47.5%	28.8%	25.8%	20.9%	13.4%	16.0%	13%
Using your intiative	37.9%	56.2%	34.7%	27.2%	17.9%	11.6%	9.5%	5.0%
Solving problems	23.6%	35.7%	35.9%	32.9%	23.7%	21.2%	16.9%	10%
How to behave at work	46.9%	57.5%	29.0%	22.5%	14.3%	10.3%	9.7%	9.7%

Table 4: 'Did you develop the following general skills in this period of work experience?' (by work placement)

	A lot	Some	A bit	Not at all
	%	%	%	%
Communication/writing	22.5%	21.1%	26.8%	29.6%
Verbal communication	50.0%	34.7%	9.7%	5.6%
Planning & organising	30.0%	42.9%	12.9%	14.3%
Working in teams	47.9%	28.8%	12.3%	11.0%
Using your intiative	34.7%	40.3%	18.1%	6.9%
Solving problems	24.7%	34.2%	21.9%	19.2%
How to behave at work	47.2%	22.2%	20.8%	9.7%

The results show that similar types of generic skills were developed in the three types of workplace activity, with 'behaving at work', 'verbal communication' and 'using your initiative' all scoring fairly highly, and 'written communication' scoring the lowest. Paid work and vocational placements both had verbal communication as the highest-scoring generic skill, while 'how to behave at work' was equal first for work experience. Overall, paid work appeared to be the most effective in developing generic skills, with vocational placements not far behind. The findings represented in Tables 3 and 4 were used to create a generic skills index for each young person.[6] The mean generic skills indices for each type of workplace activity were as follows:

• Work experience	12.33
• Paid work	13.98
• Vocational placements	13.81

Students were also asked about the 'special skills' involved in the 'jobs' they did. This gave some insight into the type of work they were doing. This was an open-ended question and responses were diverse, but some common responses were gathered together into categories during data analysis.

Table 5: Special skills involved in the three types of workplace activities

	Work experience special skills	Paid work special skills	Structured work placement special skills
Communication skills	10.5%	5.4%	8.9%
Dealing with customers	16.7%	48.8%	17.8%
Dealing with clients	4.5%	4.7%	n/a
Displaying patience	3.5%	2.3%	n/a
Operating a cash register	1.0%	4.4%	4.4%
Operating a computer	18.4%	5.9%	15.6%
Operating other	6.3%	4.1%	11.1%
Other	39.1%	24.3%	42.2%
Total	100.0%	100.0%	100.0%

Paid work involved more students in face-to-face contact with the public than was the case with students in work placements and work experience. As the table shows, dealing with customers is the priority for students in paid work. When students were asked how well they learned their special skills, vocational placement and paid student workers gave approximately the same results. Work experience was significantly lower.

How they learned

The focus now moves from what students learned to analysing how they learned in the workplace. The survey instrument gave students a number of options about how people learn at work and asked them to pick the three most important for them in the job or experience which they were discussing, then rank them in order of importance. Table 6 shows the responses for the first most important only.

Table 6: Most important way in which students learned in their workplace activities

	Work experience	Paid work	Work placement
Watching others	25.0%	19.1%	23.2%
Being shown by trainer or supervisor	35.9%	41.8%	44.9%
Being shown by fellow worker(s)	15.2%	14.9%	15.9%
Reading company manuals	.5%	1.7%	
Doing an off the job course	1.3%	1.9%	1.4%
Asking questions of a supervisor	9.2%	5.6%	4.3%
Asking questions of a fellow-worker	4.9%	3.6%	1.4%
Trial and error ('having a go')	4.5%	6.4%	5.8%
Other	.7%	1.2%	
I knew how to do it already from ...	2.7%	3.9%	2.9%

Links between school and work

Students were asked whether they discussed their workplace activities at school, either in class time or informally with friends. As might be expected, since vocational placements were connected with a school course, placement experiences were discussed more in class time than work experience or paid work. Vocational placements were also discussed with friends more. Paid work was the least likely to be discussed in class time, with over two-thirds of respondents saying that they never talked about their work in class, and over a quarter never discussing their work with friends.

Students were asked how much their workplace activities had helped them at school. Placement students were asked explicitly about links between their placement and the related course. The data showed close linkages between the two, with a clear indication that the schoolwork helped with the workplace experience more than vice versa. Students were also asked how much their workplace activities had helped them at school more generally. Paid work appeared to be the least help in schoolwork. This could relate to the lack of 'processing' of paid work back in school. However, even with paid work, a quarter of students said that their paid jobs had helped them 'a lot' or 'some' at school. Vocational placements came out on top, with 42.9% saying their placement had helped them 'a lot' or 'some' compared with 30.1% for work experience. Around two out of three students felt work experience was useful despite the fact that they also had a paid job.

In the student focus group interviews, students most often reported being shown by 'the boss' – a manager or supervisor - and by watching other workers. Watching another worker perform a task while explaining it was felt to be a useful learning strategy. An advantage of workplace learning, as opposed to school learning, was that it was generally one-to-one. One student noted that a coworker could give individual attention and ensure understanding, whereas at school a teacher had to deal with other students simultaneously. The students frequently learned by teaching themselves. Other learning strategies included: trying jobs in different sections or departments; reading company manuals; using a checklist; and formal training sessions. Employers noted that students asked questions, observed other workers, and modelled themselves on existing workers. Learning in the workplace was seen as different from learning at school. Many students appeared to prefer being in the workplace to being at school. Not all did, however, and some students reported increased motivation in schoolwork after periods in the workplace. This was variously because they began to have a clearer idea of what they wanted to do and how school could help them reach their goals, or because they learned that workplaces were hostile environments compared with school and thus appreciated school more.

Conclusion

Generally, students, school staff and employers saw most experiences in the workforce in a very positive way. Stakeholders believed that many positive outcomes result from the experience of work for many students while at school. Analysis of the data found:

- around 60% of school students have had formal paid work;
- without including paid work in family businesses, this figure drops to 50.1%;
- a significant proportion of school students have paid or unpaid work in family businesses (32.6% in all);
- most school students (almost 70%) have done work experience, and both teachers and students saw value in this experience;
- the industries in which students have paid work and vocational placements tend to be different from those where students have work experience opportunities;
- schools, VET coordinators and employers are enthusiastic about school students participating in work placements as part of schooling;
- communication skills and finding out what workplaces are really like are the most important aspects of learning in the workplace;
- students reported that they learned much more in paid work and vocational placements than in work experience; and
- students learned experientially, by watching others and by being shown individually by a trainer or coworker.

It was evident that students were not very focused on learning in workplaces in any of the three forms of workplace activity. In the focus group interviews, they had to be prompted to think in terms of learning. However, once prompted, some quite perceptive comments were made; for example one student noted the difference between 'people skills' as understood by her fast-food employer and the dentist with whom she did work experience. All of the participants - students, teachers and employers alike - paid less attention to learning in paid work than in work experience or vocational placements, although the period of training was longer in paid work.

When considering the policy framework in which work experience and vocational placements are constructed, the arrangements and opportunities for such vary remarkably. The practical arrangements of implementation occupy much of the energy and time of school staff. The unprecedented explosion of students taking up VET opportunities as part of their senior schooling has lead to a focus on the pragmatics and on programs. Links between school and work, and the intended outcomes of such programs, need to be clarified and made explicit to students and host employers. However, all forms of experience in the workplace offer possible opportunities for students to develop their potential beyond school, which is particularly important for those students who fail to shine within the school system.

Acknowledgements

The authors would like to thank the other members of the project team: Sue Erickson and Steve Keirl; and research assistants Lou Wilson, Judy Geeves and Fiona Underwood. They would also like to thank the National Research and Evaluation Committee, who funded the research.

Notes

1. Australian Bureau of Statistics, The Labour Force, 6203.0.
2. Work experience (in some schools) and vocational placements (in most schools) may not be available until year 11.
3. The industry areas were slightly adapted from ANZIC codes.
4. It should be noted that in many cases employers had been recommended to the researchers by schools or education departments, and hence may have been examples of 'good practice' host employers.
5. The list of skills in the survey, combined Mayer Key Competencies (AEC/MOVEET 1993) and 'employability skills in Sections 3, 4 and 5 of the questionnaire.
6. This was calculated by allocating a weighting from student responses - eg 'they learned a lot' was given a weighting of 3 down to 'they learned a bit' at a weighting of 1. This was then multiplied by the three types of workplace activities, giving a possible range of 27 to 0.

References

Ainley J and Fleming M (1995) School-industry programs: National Survey 1995. Sydney: Australian Student Traineeship Foundation.

Ainley J and Fleming M (1997) School-industry programs: National Survey 1996. Sydney: Australian Student Traineeship Foundation.

Athanasou J (1996) Co-operative education: evidence from the United States and Australia. Paper presented to the Australian Student Traineeship Foundation/Dusseldorp Skills Forum on School-Industry Programs. Sydney: Australian Student Traineeship Foundation.

Billett S (1998) Aligning workplace and school-based experiences. VOCAL, vol 1, August, pp 41-43.

Figgis J (1998a) Benefits to business through school-industry partnerships. Sydney: Australian Student Traineeship Foundation.

Figgis J (1998b) The business view of student work placements. Vocal, vol 1, no 1, pp 25-27.

Frost M (2000) Releasing the genie: The impact on education of vocational education and training in schools. Curriculum Perspectives, vol 20, no 1, pp 45-50.

Greenberger E (1988) Working in teenage America. In J T Mortimer and K M Borman (eds) Work experience and psychological development through the lifespan. Boulder, Colorado: Westview Press.

Griffin C (1985) Typical girls? Young women from school to the job market. London: Routledge and Kegan Paul.

Hotchkiss L (1986) Work and schools - complements or competitors? In K M Borman (ed) Becoming a worker. Norwood, New Jersey: Ablex, pp 90-115.

Hull E B (1999) Student workers: earning and learning. Perth, Western Australia: Centre for Curriculum and Professional Development, Murdoch University.

Keating J and Zbar V (1994) School industry links: experiences from two Australian regions. Sydney: Dusseldorp Skills Forum.

Malley J, Robinson L, Keating J and Hawke G (forthcoming) Analysis of the implementation of vocational education and training within Australian school systems. Adelaide: National Centre for Vocational Education Research.

Miles Morgan Australia Pty Ltd (1998) A review of the potential for increasing workplace learning opportunities with employers for secondary school students in school-based vocational education and training programs. Nedlands, Western Australia: Miles Morgan Australia Pty Ltd.

Ministerial Council on Employment, Education, Training and Youth Affairs (2000) New pathways for learning. Report of the MCEETYA taskforce on VET in schools, extract, March.

Misko J (1998) Workplace learning for students. Market for vocational education and training: who pays and who profits. Conference papers, pp 347-366. Adelaide: National Centre for Vocational Education Research.

Misko J (2000) Getting to grips with work experience. Adelaide: National Centre for Vocational Education Research.

Petherbridge J (1997) Work experience: Making an impression. Educational Review, vol 49, no 1, pp 21-27.

Robinson L (1999) The effects of part-time work on school students. Longitudinal Surveys of Australian Youth, Research report no 9. Melbourne: Australian Council for Educational Research.

Ryan R (1997) Vocational education in schools: Review of research. Adelaide: National Centre for Vocational Education Research.

Shilling C (1989) Schooling for work in capitalist Britain. New York: Falmer Press.

Smith E and Harris R (forthcoming) Work placements in VET courses: evidence from the cross-sectoral literature. Adelaide: National Centre for Vocational Education Research.

Smith E and Green A M (forthcoming) School students' learning from their paid and unpaid work. Adelaide: National Centre for Vocational Education Research.

Smith E and Smith A (1996) Inside the black box: The employer's part in school VET courses. Journal of Career Development, Spring, pp 16-21.

Stasz C and Kaganoff T (1997) Learning how to learn at work: lessons from three high school programs. Berkeley, CA: NCRVE.

Stone J R, Stern D, Hopkins C and McMillion M (1990) Adolescents' perceptions of their work: school supervised and non-school supervised. Journal of Vocational Education Research, vol 15, no 2, pp 31-53.

Sweet R (1995) Linking schools and workplaces: lessons from overseas. Sydney: Dusseldorp Skills Forum.

Wooden M (1998) The labour market for young Australians. In Dusseldorp Skills Forum, Australia's youth: reality and risk. Sydney: Dusseldorp Skills Forum.

Yap K (1998) Learning and earning: full-time student, part-time worker. In J Bessant and S Cook (eds) Against the odds: young people and work. Hobart: Australian Clearinghouse for Youth Studies, pp 143-150.

Contact details

Erica Smith
SA WRAPS
174 Pulteney St
Adelaide, South Australia 5000
Ph: +61 8 8223 7377

Annette Green
Charles Sturt University
Wagga Wagga
Ph: +61 2 6933 2407
Email: angreen@csu.edu.au

Training the TAFE sessional workforce: a new dynamic in professional development

Heather Smith, Anne Jones, Jennifer Burrows, Peter Daly and Jane Woodman
Box Hill Institute, Victoria

This paper provides a report on one of four research projects that are in progress for the Office of Post Compulsory Education, Training and Employment (PETE). These projects, together with other work, are intended to inform and contribute to the understanding and debate on training issues within the publicly-funded technical and further education (TAFE) vocational education and training (VET) sector in Victoria. These projects have followed an investigation, since published by PETE, of trends in the TAFE Institute workforce by the Centre for the Economics of Education and Training (CEET) at Monash University (CEET 2000).

This paper represents the work-in-progress of the research team and does not reflect the opinions or position of the client, PETE, on any of the matters raised.

The research team is interested in receiving commentary and opinion from persons interested in the issues raised in this paper. Many of the issues have relevance when considering the future training of the national VET workforce. Commentary is also sought from stakeholders in other states and territories about the matters raised by this research.

The focus of this project is the Victorian TAFE (VET) sessional workforce in the TAFE Institutes and private providers. This has required us to examine the staffing profile of sessional staff[1], together with their training arrangements and needs in the TAFE sector in some detail.

It is important to note that the sessional workforce in the Adult and Community Education (ACE) sector is being researched by a separate ACE-based project. The findings from this study will be shared with the ACE-based project and will then contribute to an important Victorian research forum on the Future TAFE Workforce which is scheduled for August 2001.

Context

The intention of this report is to provide a snapshot of data gathered on the characteristics and size of the sessional teaching workforce including data on age, gender, qualifications and employment pattern and background. It makes some observations regarding the future provision of staff development to sessional teachers.

There is a much broader context of change and development that needs to be considered when examining many aspects of the sessional workforce in TAFE (VET). This broader context requires some elaboration.

For example, in modern western societies the nature and pattern of work - and therefore, of workforce participation - are changing fundamentally. This has been subject to a great deal of commentary and analysis in the international research literature in the last several years.

Even within Australia, long regarded as a model for stable and equitable employment arrangements, it is now clearly the case that for many workers the traditional eight-hour day of 'nine to five' is no longer a standard.

The growth of non-standard hours has been the universal trend towards a non-standard workforce. This has been the product of an accelerating trend to the casualisation of work and corporate outsourcing and downsizing. The latter have been responses to a web of economic, social and political drivers that are broadly connected to Australia's relationships with global systems, technologies and ways of thinking about public and private sector organisation and management.

The emerging national workforce profile is therefore now one of a much more segmented workforce with different employment conditions and experiences, because plurality and diversity has replaced the standard employment model of the past.

VandenHeuvel and Wooden (1999) have pointed out that since 1971 the number of Australian workers in full-time employment has fallen from 75% to around 51%. Over the same period, the number of part-time employees has doubled and the number of casual employees has tripled (Robinson 2000).

Today, casual employees make up 26% of the national workforce and 64.6% of part-time employees are classified as casual (Toomey 2000). Moreover, 'the reality is that more and more workers are stuck in casual employment for longer and longer periods, some for 10 years or more' (Campbell, in Toomey 2000).

The education sector has also experienced this trend. The Department of Education and Training in NSW, for example, employs approximately 13,000 TAFE casual/hourly-paid teachers compared with its permanent TAFE staff of around 5,000 teachers. Hewett (2000) has estimated that over half the South Australian TAFE workforce are classified as casual employees.

In Victoria, a study by the Australian Council for Private Education and Training estimated that 70% of teachers in commercial private providers were part-time or sessional employees (ACPET 1998).

More recently, Shah (2000) has found that sessional teachers, as a proportion of the workforce in public providers, has increased from 21% in 1993 to 32% in 1998, and that the average annual growth rate was 13.9% (refer to Table 1).

Table 1: Annual employment by sex, sessional teachers (persons), 1993-98 (Shah, 2000)

Year	Male	Female	All
1993	1,020	1,096	2,116
1994	912	1,025	1,937
1995	1,050	1,247	2,297
1996	1,099	1,309	2,408
1997	1,340	1,567	2,907
1998	1,465	1,609	3,074
Average annual rate of growth 1993-98	13.0%	14.8%	13.9%

Note: Annual employment is calculated by taking the average of monthly employment over the 12 months of the year. Annual growth rates are based on ordinary least squares (OLS) estimates from a log-linear model.

In 2000, CEET released a report on training implications for the TAFE (VET) sector in the future. This research built on the work of Villiers et al (1997a-d), and Seddon and Malley (1998) into staff development provision. In addition to identifying key issues about workforce development, recruitment and the maintenance of quality learning and outcomes, CEET (2000) highlighted the trend to sessional and contract staff among public providers.

CEET (2000) also identified a fall in full-time employment by 8% and an increase in part-time employment by 34% between 1993-1998. More specifically, the number of full-time tenured staff fell from 46% to 37%; fixed term tenured staff remained constant at 28%; and casual staff increased from 26% to 36% of the TAFE workforce. Furthermore, sessional staff, who were the main source of new teachers, were concentrated in health and community services, social and employment skills, science, and visual and performing arts teaching areas.

It is of particular interest that, against a backdrop of government exhortation to Australian industry to commit to training and human resource investment, the growing trend of casualisation appears to impact significantly on workers' access to training.

VandenHeuvel and Wooden (1999) found that permanent employees are more likely to participate in training. However, when the distinction between external training undertaken with or without employer support is made, casual employees are more likely of the two to participate in external training without the support of their employer.

Interestingly, these general workplace trends were reflected in the Victorian TAFE Institute research findings of Villiers et al (1997a-d) and the national review by Harris et al (2000), who both suggested that sessional teachers are less likely to participate in formal in-house training activities. Both researchers also reported that employers with a greater proportion of part-time or casual workers invested less in training activities than other employers with a larger number of contract or permanent staff.

Villiers also reported that sessional teachers - who in 1996 represented 20% of the combined workforce from a sample of 16 of Victoria's then 27 TAFE institutes - only received 3% of total staff development funding (Villiers et al 1997b, p 28). Villiers also found that the teaching category had a smaller proportion of ongoing staff and a higher proportion of casual employment than any other category of TAFE Institute staff (Villiers et al 1997a, p 14). This led to concerns that TAFE's own training effort was not keeping pace with the growth of teacher numbers.

While the above research can do little more than illustrate the depth and recency of interest in training and training behaviour within the TAFE (VET) industry, it is clear that this is now a major area of opportunity for researchers. As TAFE (VET) has been regarded as a major instrument for supporting industrial training reform, it is of particular interest to glean a much better understanding of the VET industry's own practices and to understand the nature of training and workforce development issues within TAFE (VET).

Project specification

PETE commissioned the research project to determine the number and characteristics of sessional teaching staff, to identify features of their work patterns and perceptions of their training needs and provide signposts for policy directions in training provision.

More specifically, PETE requested that the methodology should be designed to provide reliable data in relation to the following research questions.

Composition and characteristics of the TAFE sessional workforce

- What are the estimated numbers and characteristics of casual staff who comprise this workforce group?
- What is the composition by gender, age and teaching areas of individuals within this group?
- What are the relevant employment backgrounds of such staff?
- How many hold teaching positions in another TAFE provider and is that provider in the public or private sector?
- How many hold training or non-training employment in other public or private sector organisations and how does that employment relate to their teaching expertise?
- Why do individuals in this workforce group seek casual work in TAFE? Do they see their involvement in such work as continuing?

Training activity and training needs of the TAFE sessional workforce

- How many receive training from their TAFE employer? Do they regard this as adequate? If not, why not?
- What specific training needs do these staff report as being met or not met by the TAFE employer?
- What are the preferred modes and areas of training required by this workforce group?
- What, if anything, needs to be done to address the training needs of this workforce group? By whom? How? And what are the options?
- What role can online staff training be expected to play in supporting this workforce group?
- How well recognised and understood is the contribution of this workforce group to current and future TAFE operations?

Methodology

The research for this project used both qualitative and quantitative methodologies. The twelve research questions formed the basis of two print-based survey instruments; one for managers of sessional staff and one for sessional teaching staff. Initial focus groups were conducted to inform the design of the survey instrument.

Staff in both private and public TAFE providers were surveyed. They were representative of a variety of industry sectors and geographical locations. Surveys were unmarked and developed according to the code of ethics established by the Market Research Society of Australia.

The survey groups for managers and sessional teachers were drawn from:

- Victoria's 18 TAFE Institutes and 5 TAFE Divisions of Victorian Universities
- a sample of 10% of private providers stratified by region and program profile.

Five thousand surveys were distributed in November 2000 to sessional teachers and 613 to managers (refer to Table 2). A response rate of 18.8% for sessional teachers and 36.1% for managers was achieved.

Table 2: Distribution statistics for the survey instrument

Sector	Sessional teachers	Managers
Public	4,512	404
Private	488	209
Total	5,000	613

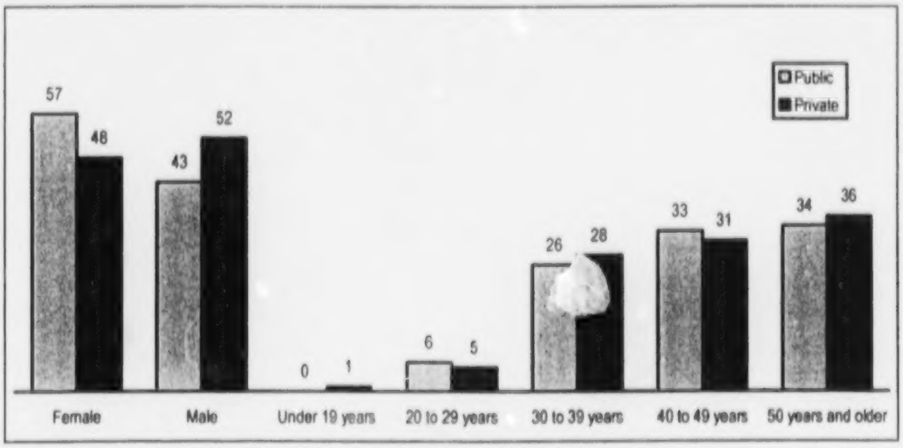
After the survey results were analysed, a further round of focus groups were conducted aimed at capturing rich qualitative data to confirm, expand on and clarify the responses of participants in the survey.

A preliminary snapshot of findings

Composition and characteristics of the TAFE sessional workforce

The gender and age analysis generated from the survey data is presented in Figure 1. It was found that there is a slight difference in the proportion of males and females between the public and private sectors. The age of sessional teachers is skewed towards a middle-aged workforce, as 67% of those working at both public and private providers belonged to the 40+ age group classification.

Figure 1: Gender and age analysis of TAFE sessional teachers (numbers are proportion of provider type*).



Note: *Figures are rounded to the nearest whole percent.

One of the objectives of the study was to estimate the actual size of the sessional workforce in Victoria. A number of factors were required to be taken into consideration in the calculations, the foremost being the issue of double-counting (where sessional staff may have more than one employer) intrinsic in the collection of statistical returns from TAFE providers.

The results of the survey returns were used to estimate the size of the sessional workforce as presented in Table 3, following. If we assume an annual increase in the size of the workforce as calculated by Shah (2000) of 13.9%, this research verifies the size of the TAFE sessional workforce as measured in previous studies. Villiers et al (1997b, Appendix Table 1) estimated the casual teaching workforce in the public TAFE sector to be some 3,108 persons.

Table 3: Estimated composition of the TAFE sessional workforce

Provider type	Lower estimate	Upper estimate	Mean
Public provider	4,359	4,735	4,603
Private provider*	1,015	2,502	1,821
TOTAL	5,374	7,237	6,424

Note: * these figures are currently being verified using a non-response sample from the original survey methodology.

The survey results found that the majority of sessional teachers work for one organisation only (64% of public and 71% of private provider sessional teachers).

It was also found that the majority of the sessional workforce at both public and private providers held teaching or training qualifications (82% of public and 92% of private). Of those, 40% of public and 29% of private provider sessional teachers held a degree or higher degree related to education.

The findings concerning the perception of sessional teachers as to whether they regarded teaching in TAFE as their career could be viewed in two ways. The majority of sessional teachers surveyed did not consider teaching in TAFE to be their main career. However, 44% of public and 31% of private provider sessional teachers felt that teaching in TAFE was their main career. Moreover, when sessional teachers were asked to indicate what their career plans were for the next five years, 67% of public and 51% of private provider sessional teachers felt that they would still be teaching in TAFE. In addition, 56% of public and 64% of private provider sessional teachers felt that it was either 'Somewhat likely' or 'Very likely' that they would be still working as a sessional teacher in the next five years.

Training activity and training needs of the TAFE sessional workforce

For the purposes of the project, the definition of training began with that used by the Australian Bureau of Statistics in 'Australian social trends 1995, education and work: employee training':

> Training refers to activities which develop or maintain skills related to job performance and/or competency.

Pre-survey focus groups were used to refine the definition in the light of perceptions of training amongst sessional teachers. The results were used to generate the categories of training used in the survey instrument.

When the managers of TAFE providers were asked to estimate the proportion of the sessional teachers working for their organisation that received training, 30% of public and 22% of private provider managers estimated that more than 50% of sessional teachers were receiving training.

It was found that 70% of public and 65% of private provider sessional teachers indicated that they had not received any training.

Research indicated that 38% and 21% of public and private sessional teachers respectively were 'Very dissatisfied' or 'Dissatisfied' with the quantity of training provided by their employers. Conversely, 16% and 24% of public and private sessional teachers respectively were 'Very satisfied' or 'Satisfied' with the amount of training provided.

With regard to the quality of training provided by employers, it was found that 28% and 15% of public and private sessional teachers respectively were either 'Very dissatisfied' or 'Dissatisfied' with the quality of the training, whereas, 22% and 24% of public and private sessional teachers respectively were either 'Very satisfied' or 'Satisfied' with the quality of the training received.

Sessional teachers indicated that they are mainly interested in the following types of training:

- Computers and software applications
- Information relevant to the areas being taught
- Teaching and education skills.

However, public and private sessional teachers ranked them in different orders.

The mode of training delivery was also addressed in the managers' survey. The most popular options as indicated by the managers of sessional teachers (% of respondents who ranked the mode of training as 'Somewhat effective' or 'Highly effective' is indicated in brackets) are:

- Face-to-face (87%)
- Distance education (71%)
- Self-directed online training (70%).

Summary

The final project report will go some way to providing a more complete account of the characteristics of the current sessional teaching workforce and establish a basis for considering arrangements for their professional development needs.

Continuing data analysis and subsequent validation focus groups by the research team are required before the finalisation of the report. The challenge for the final research report is to explore approaches that represent an innovative and flexible framework that meets the needs of all stakeholders.

However, it is clear from the preliminary findings that orthodox perceptions of the sessional workforce in terms of gender composition, age structure and employment aspirations need to be rethought. In relation to the respondents intentions to remain in sessional employment, the view of the workforce as an ephemeral, peripatetic group has not been born out by this research. In fact, a key feature of the workforce may be that it is more of a stable and significant contributor to the overall effort in training delivery than it has been in the past.

Additional issues that will need to be addressed in the final report include:

- The impact of differences in the characteristics and patterns of participation in the sessional teaching workforce population on training provision.
- The age structure of the sessional teaching workforce.
- The qualifications profiles of the sessional teaching workforce.
- The differing perceptions of training needs and preferred training modes among sessional teaching staff and other stakeholders.
- Differing perceptions among sessional teachers and manager groups as to the comparative effectiveness of different types of delivery.
- Training resources directed at the continuous improvement of subject skills or towards information technology.
- The future employment plans and aspirations of public and private provider sessional teachers.

Note

1. For the purposes of this research project, sessional teaching staff have been defined as hourly paid trainers/teachers who do not receive holiday or superannuation payments.

References

CEET (2000) Trends in the TAFE workforce and their implications for the training and development of TAFE staff 1998-2008. Melbourne, Victoria: PETE.

Forward P (2000) The casual crisis in TAFE. AEU (SA Branch) Journal, 8 March.

Fawcett T, Parrott T and Strahan K (1998) Staff training and development in the commercial sector of the state training system of Victoria. Victoria: ACPET.

Harris R et al (2000) The changing role of staff development for teachers and trainers in VET. Adelaide: National Centre for Vocational Education Research.

Hewett, R (2000) National TAFE system faces a funding crisis. The Australian TAFE Teacher, vol 34, no 3, p 6.

Robinson C (2000) The impact of the changing world of work on training. Australian Training Review, July/August/September, pp 2-3.

Seddon T and Malley J (1998) A staff development strategy for supporting research priorities in the State Training Service. Melbourne: Office of Training and Further Education.

Shah C (2000) Employment shifts in the TAFE workforce in Victoria, 1993-98. CEET working paper no 27, July.

Toomey S (2000) Casual work gains momentum/some perks, much insecurity. The Australian, 6 October.

VandenHeuvel A and Wooden M (1999) Casualisation and outsourcing: trends and implications for work related training. Adelaide: National Centre for Vocational Education Research.

Villiers G et al (1997a) Staff training and development in the TAFE sector of the state training system: vol 1, summary. Victoria: OFTE.

Villiers G et al (1997b) Staff training and development in the TAFE sector of the state training system: vol 2, Enterprise based. Victoria: OFTE.

Villiers G et al (1997c) Staff training and development in the TAFE sector of the state training system: vol 3, Private training. Victoria: OFTE.

Villiers G et al (1997d) Staff training and development in the TAFE sector of the state training system: vol 4, Research design. Victoria: OFTE.

Contact details

Heather Smith
Box Hill Institute
Box Hill, Victoria
Email: H.Smith@bhtafe.edu.au

Anne Jones
Email: a.jones@bhtafe.edu.au

Testing the feasibility of strategies to enhance flexible delivery in the workplace

Peter J Smith

Deakin University, Victoria

Lyn Wakefield

Gordon Institute of TAFE, Victoria

Ian Robertson

Box Hill Institute of TAFE, Victoria

Smith (2000a, 2000b) has published research on the learning preferences and strategies of VET learners, and the support provided to them in the workplace. That research has shown that, for flexible delivery in the workplace to be effective, strategies need to be developed to enhance the preparedness both of learners and workplaces to engage in successful flexible delivery. From that earlier research, Smith (2000c) has generated a model of flexible delivery, together with a broad set of possible strategies to develop the necessary preparedness.

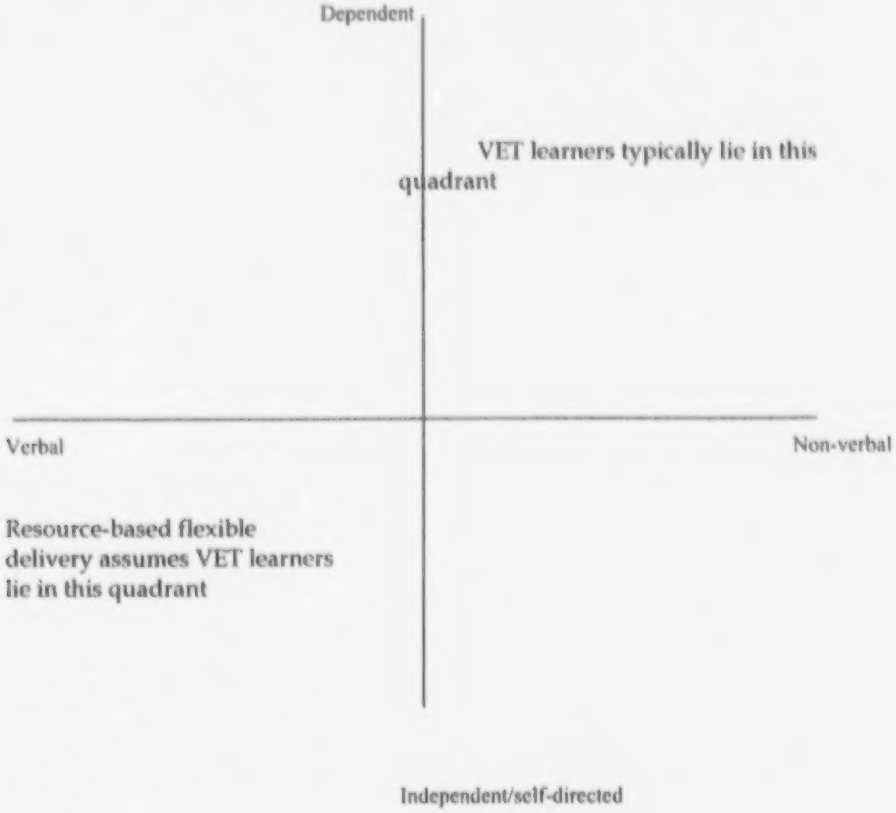
This paper describes a current research project, supported by the National Centre for Vocational Education Research (NCVER), and designed to test the feasibility of those strategies for implementation in operating workplaces. The paper will also report on results to date.

At the AVETRA Conference in 2000, Smith (2000b) presented a paper representing research undertaken on the preparedness of VET learners and their workplaces for flexible delivery. That paper reviewed literature (Boote 1998; Evans 2000; Kember 1995) observing that successful open learning or resource-based flexible delivery requires learners to be self-directed. Based on writers such as Candy (1991) and Crombie (1995), Boote had raised the question of whether VET learners are prepared for flexible delivery and well supported through it. Subsequent empirical large sample research by Warner et al (1998), and Smith (2000a, 2000b) has borne out Boote's suggestions, and shown that VET learners are not typically well prepared or equipped for successful engagement in self-directed learning.

The Warner et al (1998) paper collected data from a cross section of VET learners in three states, using the Gugliemino and Gugliemino (1991) *Learning Preference Assessment*, and indicated that a high majority of VET students yielded low scores on the self-directed learning scale. Their research also showed a preference among VET students for face-to-face delivery and print-based packaged learning materials over other forms, and preferred work projects as 'guided-experiential learning experience' (p 8).

Smith's (2000a) research used a large sample of VET learners from one state in an empirical study using the *Canfield Learning Styles Inventory* (Canfield 1980). That research indicated that, although there was variation among different groups of VET learners, they were largely characterised by a preference for dependent learning contexts where structure was provided, instructors provided guidance, and where learning was a social activity undertaken in a context of good peer and instructor relationships. Self-directed learning was a low preference. The research also showed that VET learners preferred to learn from hands-on direct experience rather than through reading or listening. Smith (2000c) has provided the two-dimensional Figure 1 to show the tension between VET learner preferences and the requirements of flexible delivery.

Figure 1: Two dimensional representation of factors describing VET learner preferences


Dependent
VET learners typically lie in this quadrant
Verbal
Non-verbal
Resource-based flexible delivery assumes VET learners lie in this quadrant
Independent/self-directed

Smith's research also involved detailed interviews with a small sample of VET learners to establish the metacognitive, cognitive and social/affective learning strategies they used while engaged with learning through flexible delivery in the workplace. That research indicated that VET learners typically used those strategies associated with learning and practising material structured and provided for them by their instructor, and by the course material. They did not typically use learning strategies, nor access other learning materials, that extended their knowledge beyond that provided by the program structure. They did not form their own structures through their learning.

Finally, Smith (2000b, 2000c) has reported on further research focused on the support provided for flexible learners in their workplaces. Similarly to other workplace research (eg Brooker and Butler 1997; Calder and McCollum 1998; Harris et al 1998), Smith's research indicated that workplaces had not typically developed the training policies and structures necessary for workplace learning support. Learners characteristically had little workplace guidance, sometimes experienced grudging attention to their learning needs, and experienced confusion between their roles as learners and as workers. Additionally, as also observed in Britain by Calder and McCollum (1998), engaging with self-paced learning materials in the workforce was sometimes seen as 'time out', and not as legitimate an activity as attending instructor-led training courses.

Clearly, the results from these three research directions indicate that some considerable challenges confront the successful implementation of flexible delivery for VET learners in their workplace. The research has been placed together in a framework to develop a model for effective flexible delivery. That model has two major components:

- The development of intervention strategies to assist VET learners to develop the skills needed for effective self-directed, and ultimately, lifelong learning; and

- The development of enterprise-based strategies to assist enterprises to develop the policies, processes and structures to recognise and support flexible learning within workplaces.

On the basis of that research Smith (2000b) provided a model for developing preparedness for flexible delivery in the workplace. That model was based on the need to develop both learners and their workplaces. The model was provided in summarised form in the AVETRA 2000 conference presentation (Smith 2000b). The detailed foci of the model were as follows.

Learner preparedness

- preparedness for self-directed learning in an environment of less instructor guidance
- preparedness for development of skills and conceptual knowledge through a range of learning strategies and materials
- preparedness to structure own learning within a community of practice.

Workplace preparedness

- development of clear training policies
- development of training structures
- development of trainer skills to support:
    - self-directed learning;
    - acquisition of skills and concepts; and
    - participation in a community of practice.

Within each of these foci, a number of specific strategies were identified to enable implementation of each of the developmental areas. These strategies are provided in detail in Smith (2000c).

The current research in progress

Following the identification of those strategies through research and literature review, there is a need for the research to move towards its expected connection with practice. In short, we need to test the feasibility of the identified strategies for their implementation in workplaces. The new project, undertaken between the three authors, from a university and two TAFE institutes, is designed to test that feasibility in a number of different workplaces and to identify possible implementation processes for each of the strategies found to be feasible. Further, the research is designed to identify whether some strategies may be feasible in some workplaces but not others; as well as identifying strategies being used in workplaces but not in the original Smith (2000c) set. NCVER has supported this research through a 2000 Major Round Grant to the Research Institute for Professional and Vocational Education and Training, located at Deakin University and the Gordon Institute of TAFE.

The precise research questions to be addressed in the projects are:

- Which of the set of learner development strategies identified in research to date can be feasibly implemented in operating workplaces?

- Which of the set of workplace support strategies identified in research to date can be feasibly implemented in operating workplaces?

- Can features of enterprises and their cultures be linked to the feasible implementation of precise strategies?

- What strategies identified through workplace practices can be added to the strategies identified by research?

- How can the learner development and workplace support strategies be effectively implemented in workplaces?

Data gathering is designed to take three forms. First, there is a need to update the current literature review. Second, data will be collected from enterprises through a semi-structured interview format, with individual management personnel in each enterprise identified as having a responsibility for training and training management. Those interviews will be aimed at identifying the feasible strategies for implementation. Third, a focus group methodology will be used in each enterprise, to gather data on the possible implementation processes that may attend the application within that enterprise of each strategy identified by that enterprise as feasible. Enterprises have been identified and data collection for this research will have commenced by the time AVETRA meets in 2001. The collection of enterprises comprises a mix of industry sectors, enterprise sizes, and regional and metropolitan areas. We are not able to identify the enterprises in this paper.

Training and training management personnel within each identified enterprise will be targeted for interview. Front line management and supervisory staff will also be targeted for the focus group component.

It is expected that this research will be completed within months of the AVETRA 2001 conference, such that publications and conference papers will begin to flow in the second half of 2001.

References

Boote J (1998) Learning to learn in vocational education and training: are students and teachers ready for it? Australian and New Zealand Journal of Vocational Education Research, vol 6, pp 59-86.

Brooker R and Butler J (1997) The learning context within the workplace: as perceived by apprentices and their workplace trainers. Journal of Vocational Education and Training, vol 49, pp 487-510.

Calder J and McCollum A (1998) Open and flexible learning in vocational education and training. London: Kogan Page.

Candy P C (1991) Self-direction for lifelong learning. San Francisco: Jossey-Bass.

Canfield A (1980) The Canfield Learning Styles Inventory. Humanics Media/Ann Arbor.

Crombie A (1995) Cinderella – four years on. Paper presented to the Adult Learners Week Conference, Adult and Community Education, New South Wales.

Evans T (2000) Flexible delivery and flexible learning: developing flexible learners? In V Jakupec and J Garrick (eds) Flexible learning, human resource and organisational development. London: Routledge, pp 211-224.

Guglielmino L M and Guglielmino P J (1991) The learning preference assessment. USA: Organisation Design and Development.

Harris R, Willis P, Simons M and Underwood F (1998) Learning the job. Adelaide: National Centre for Vocational Education Research.

Kember D (1995) Open learning courses for adults: a model of student progress. Englewood Cliffs, New Jersey: Educational Technology Publications.

Smith P J (2000a) Preparedness for flexible delivery among vocational students. Distance Education, vol 21, pp 29-48.

Smith P J (2000b) Preparing learners and their workplaces in the effective use of flexible delivery for workforce training. Paper presented to the third annual conference of the Australian Vocational Education and Training Research Association, Canberra, March.

Smith P J (2000c) Preparing for flexible delivery in industry: learners and their workplaces. Unpublished Doctoral dissertation, Deakin University, Geelong, Victoria.

Warner D, Christie G and Choy S (1998) The readiness of the VET sector for flexible delivery including online learning. Brisbane: Australian National Training Authority.

Contact details

Peter Smith
Lecturer - Professional Education and Training
School of Social and Cultural Studies
Geelong Campus
Deakin University
Ph: +61 3 5227 1452
Email: pjbs@deakin.edu.au

Abstract

Development of online evaluation for improving customer service at Kangan Batman TAFE

Lucy Stockdale and Erefilly Potter
Kangan Batman TAFE, Victoria

Kangan Batman TAFE is located in the north-west region of Melbourne Metropolitan area. It was the result of the merger between Kangan Institute of TAFE (formerly Broadmeadows College of TAFE) and John Batman Institute of TAFE. It is committed to programs, training resources and services being developed and delivered to its stakeholders.

Currently, web based surveys are being used primarily for evaluating VET online delivery. There has been minimal research and usage of this tool to gather stakeholder satisfaction and customer feedback information which is required as part of the performance indicators by the State Training System. This paper will examine some of the current online evaluation tools being used in the VET sector and discuss the holistic approach being employed by Kangan Batman TAFE in developing the most appropriate online evaluation tools for all its customers.

Abstract

Survey methods user group (SMUG) workshop

Lucy Stockdale
Kangan Batman Institute of TAFE, Victoria
and
Heather Symons
Canberra Institute of Technology

Many VET researchers use surveys to inform their research. In particular, researchers in RTOs often use various client feedback surveys to provide evidence for reporting against key performance indicators and as part of the quality assurance cycle of their institutes. The workshop facilitators propose starting a survey methods user group as a special interest group of AVETRA. They are seeking input from similarly interested people, especially with regard to:

- the level of interest in such a group
- the scope of the group, including using both quantitative and qualitative survey methods
- ways of sharing information
- issues concerning researchers using surveys.

Learning work, learning to work: literacy, language and numeracy as vehicles for learning in Training Packages

Ruth Trenerry

University of South Australia

Preamble

This AVETRA conference paper is an extraction. It is taken from a research project, soon to be published, that is part of the work of the South Australian Centre of the Adult Literacy and Numeracy Australian Research Consortium (ALNARC SA). The Commonwealth, through the Department of Education, Training and Youth Affairs, funds the national consortium under the Australian National Training Authority (ANTA) Adult Literacy National Project. The research project investigates the role of literacy, language and numeracy as vehicles for learning in industry Training Packages and argues that the teaching and learning of vocational skills requires a focus on the key skills of communication, numeracy and learning to learn as a conscious part of the process of achieving vocational unit outcomes.

Today's paper is divided into four parts. It will look at the aims, methods of data collection and research findings from the study. The paper will conclude with the voice of one research participant. Taken from the guided interview, 'Elizabeth' speaks about her training, and the teaching and learning it affords, and positions herself within the new training model.

Project aims and overview of the study

In 2000, ALNARC SA investigated aspects of training and the training environment of one Registered Training Organisation (RTO) delivering the National Training Packages in South Australian industry sites. The Training Package delivery was of the *Horticulture Training Package*, with a broader look at the culture of training related to the fields of Civil Construction, General Construction, Horticulture, Agriculture and Extractive and Mining Industries. The RTO involved was registered to deliver the training of Training Package units and assess using the Training Package *Certificate IV in Assessment and Workplace Training*.

This paper will reflect upon literacy and numeracy for and in workplace training. It is in the interpretation of the Training Package model that the delivery of quality training takes place and quality teaching and learning occurs. The study argues that trainers and trainees engage in a multiplicity of literate and numerate practices as they engage in the training process, and that these practices merit attention as a way to encourage good practice in industry training. Workplace practices can be thought of as involving literacy as 'rich and meaningful formulations' Castleton (1999, p 22) on any work site. Individual performance is less a part of the way work is achieved; rather, a 'sharing of knowledge and skills' constructs work in new times (Luke 1993). Gowan (1992) confirms the view that literacy skills as expressed through auditing processes and represented in discrete units may not deliver the effective work practices for industry in the post-Fordist era, when 'productive diversity' (Cope and Kalantzis 1997) is an appropriate response to 'a rapidly changing world' (Gowan

1990, p 15). Industry training requires a training culture to both reflect the cultures at work in work, and to facilitate as new skills are developed for new times. It is through examples of good training practice, as evidenced in this paper, that better training can result.

My paper has its origins in an investigation of the efficacy of language, literacy and numeracy competencies embedded in the units of the Training Packages. The research interest has, however, moved from disentangling discrete literacy and/or numeracy skills, critical as they are, to an emphasis of the *role* of language literacy and numeracy as vehicles for learning in the units of competence. The understanding here is that specific literate and numerate practices enable learning, and that the learners' ability to manipulate such practices according to their learning needs is key to the learning process.

New workers, changed working conditions and changing work patterns are the focal points that I will consider in this discussion about work and learning and the role of literacy and numeracy practices in this. The ways in which new work practices and new training agendas are taken up will provide the lens for this investigation. And the voices of research participants in this text will allow the reflections to move from theoretical and policy considerations to the everyday practices that seek to effect the changes taking place. For example, when thinking about work teams, one research participant reflected upon his management role in this way;

> Well ... that's just basic supervising people, organising daily, weekly, yearly programs, sorting out OH&S issues, even HR (human resource) issues, just basically looking at ways to continue to improve the team with the team involvement, you know looking at better ways, making sure that they are having plenty of input, they're not just told, 'This is what you are going to do', let them have some input and actually enjoy the job and get better outcome out of it. (Research informant, August 2000)

The new training agenda in Australia at this time, the National Training Framework (NTF, Australian National Training Authority 1997) is a collaborative Government Industry project and has at its centre industry Training Packages intended for delivery by a RTO predominantly on the worksite. This training model essentially shifts the location for training familiar under the National Training Reform Agenda (NTRA) of the late 1980s and early 1990s from the training institution to the worksite, and moves away from curriculum-based industry training, while holding on to the concept of competency-based training (CBT).

So, the study aims to examine the educational and management strategies that influence trainee learning on a workplace training site, as facilitated by a RTO with the management strategies that construct a culture of learning within a skill centre. This paper will allow the range of research participants engaged in the study to talk about their practices and understanding in the reception, delivery and facilitation of the Training Package model, including: the trainees, trainers, training package coordinators and resource persons, workplace literacy support persons and skills centre managers. A central theme throughout the paper is the literate practices at work to get the job of training done (practices that collapse into sets of social practices and can be named as a 'discourse', Gee 1990).

> It is on the basis of [such] understandings of how discourse works within social practices that people can come to question and look beyond existing discourses, or existing relations of dominance and marginalisation between discourses, and so advance knowledge.
> (Fairclough 2000, p 4)

Although Training Package units capture the skills development expected of an employee in the workplace, and not the learning process, this research asserts that the learning process is synchronous with training in the workplace. 'The concept of a competency focuses on what is expected of an employee in the workplace *rather than the learning process*, and embodies the ability to transfer and apply skills and knowledge to new situations and environments' [Author's emphasis] (Australian National Training Authority, Training Package Development Handbook). Key questions to locate interpretations of the Training Package model relate to the broad issues of how trainers incorporate the Training Package model into their practice, specifically: what instruction/teaching practices do they adopt to facilitate trainees reaching accreditation goals?

I believe that literacy and numeracy have a major role here. Literate and numerate practices are integral in the process of acquiring skills, knowledge and understandings; they are inseparable from the social practices that provide the discourse that does the work of learning in training. This study intends a documentation of the learning practices and strategies, both formal and informal, that are utilised as a medium for learning in the workplace. More specifically, the focus will be on the strategies that are specifically related to the definitions of literacy and numeracy operational on the research sites. Research findings will provide insights about learning; about workplace learning and literacy and numeracy as vehicles for learning; and the Training Package model and the inclusion of literacy and numeracy competencies in Training Packages.

Data collection

The study was informed by a broad range of literature around work, the work of language and literacy in learning, and pedagogical practices for workplace training. Data collection took place in two industry sites and at a skills centre. The research purpose was to examine the educational and management strategies that influence workplace learning. Four categories of research participant were selected:

1. Trainees;
2. Workplace trainers;
3. Resource and training support persons (literacy and numeracy support and Training Package resources); and
4. Managerial and supervisory persons.

Research informants 2-4 were interviewed individually, while some trainees were interviewed both individually and in a focus group.

The study commenced in May 2000. The sequence of activity for the research involved an ethics clearance, literature review, on-site data collection (August-October), analysis of data, and the writing up and dissemination of research products. Research products will include a research paper and research report, with an additional leaflet for practitioners containing key findings and citing their relevance for trainees, trainers and Training Package coordinators and managers.

Research findings

The research participants in this study have made available a body of information that touches upon each of the categories listed here. The information from the data clusters around two organisational levels: the micro level (trainees, Training Package coordinators, resource developers and trainers) and the macro level (industry partners, skills, centre managers, supervisors). At the micro level, the research study revealed key aspects of the teaching-learning exchange.

There were six specific findings:

1. The robust nature of learning as situated practice
2. The role of collaborative learning
3. A need for trainer awareness of their teaching strategies in the facilitation of learning
4. The primary role of oral communication (NRS indicator) as a learning tool
5. The need for a meta-language awareness for trainees (and trainers)
6. Continued balancing of on/off job training to build skills/knowledge/understandings.

The macro level presented as the structural support required to progress learning. This involved five components:

1. Industry networks to link work and training experiences
2. Professional development opportunities to advance understandings, skills and knowledge of training
3. Pathways into and across training that enable access and equity
4. Ongoing review processes enabling Training Package fine tuning
5. Resource development within specific industries, ITABs and VET programs.

The research site - one experience of Training Packages implementation

I now want to use the data from the study to build a picture of how one RTO (two trainers) and their trainees (six trainees, including one supervisor) engage with the Training Packages. Here I have explored the actual pedagogical practices and learning strategies, both informal and formal, that are utilised as a medium for learning work and learning about work – with specific reference to the definitions of literacy and numeracy operational on the research sites. It was my view that this RTO was exemplary in its interpretation of the Training Package model, providing a rich set of learning experiences for its trainees.

The Training Package model offers work site training through a negotiation between the workplace trainee and the RTO trainer. In many industries the implementation process is still underway, with the release of Training Packages across industries being phased in from 1997/1998. The Horticulture Training Package was first used in early 1999 (Trenerry 2000) and, for the RTO represented in this study, the implementation process occurred over 1999/2000. This RTO worked through the details, issues and ways of working to effect their implementation of Training

Package delivery. The RTO identified its way of working as a close partnership with the state industry ITAB (Rural Training Council), to fully understand the intent of the package and to question the ITAB Training Package coordinator in detail on specific fine points of the model. The RTO training team shared information as they planned for delivery and questioned the Skills Centre research and development manager on aspects of the model that were unclear. One trainer indicated that on many points, it was a matter of 'working it out myself'. This, it was recorded, 'took a lot of effort'. Effort was focused upon putting all the paperwork in place, thinking about resources and then 'working with the workplace and tying training into the workplace. That's the big thing that we're really focussed on'.

> It took a while to just understand how, to appreciate how they work in the workplace. You know I was doing all hands on, and then began to realise I need to structure this a bit more in some classroom work for them, just for that structure we still have to learn this information, but making sure that there was a balance with it on the job. (Trainer)

In fact, trainers reported that in the early stages of the implementation process they were ready to fit in with changes to training schedules if the workplace requested such changes, but with increased confidence in their learning program, they were more insistent on a pattern for training as agreed in the original training timetable.

The RTO in this study was clear that training was not an isolated activity, and adjunct to the work of the industry, it was critical for the RTO to build into its training what the two trainers termed as a culture of learning. This developing culture was evident in the structure of the training. One key to this is the role of communication.

> Yes, in fact we've got fairly good communications because we've got such a small team so yeah, we kind of moved into it before we completely understood it, and it was moving in slowly and then making sure. We had regular meetings with our head of department where issues were brought up or things we didn't understand cleared, and it also gave us an opportunity to talk about things that may have happened on the job that you would have done differently next time, and thus understanding how the packages work. (Trainer)

Concluding remarks: the perspective of one trainee

What are the links between the theory and practice emerging from this analysis of workplace training? The argument has been that the teaching and learning of vocational skills requires a focus on the key skills of communication, numeracy and learning to learn as a conscious part of the process of achieving vocational unit outcomes. It is in the interpretation of the Training Package model at this time - when the new work order encourages new workers, new knowledge practices and new ways of doing training - that is important. The interpretation of the Training Package model evidenced in this study is one where skills are not thought of as merely techniques to be learnt through formulaic methods. The research informants offered possible ways of working with the Training Package model to promote rich and meaningful literate understandings and formulations (after Castleton 1999). Language, literacy and numeracy are vehicles for learning in training programs and in the training process.

I think the following commentary - the voice of one of the research participants in this project 'Learning work, learning to work: literacy, language and numeracy as vehicles for learning in Training Packages' - helps to look at the practical and theoretical issues for workplace training at this time. Elizabeth (not her real name) is representative of a new worker for changing times. Elizabeth trains and works in an industry with a lower representation of female workers than male. She chose to work and train in the industry because of her positive experience in a horticulture access course for jobseekers and 'discovered that I actually really, really liked it'.

I have taken Elizabeth's comments (taped in a guided interview) and organised them according to the categories that surfaced in the research findings, such as 'the robust nature of learning as situated practice'. It is in this idea of positioning training within everyday work practices that the Training Package model is both a departure from and a return to a model of learning for work that is at the same time vigorous and problematic. It is vigorous in the sense that on-the-job training delivers a currency that is immediate and purposeful, but problematic in that good practice requires the kinds of examples of Training Package interpretation/exploration that I have wanted to expose in this study.

Elizabeth tells us explicitly why her training works for her in terms of content, method and interest. Behind Elizabeth is an energetic and dedicated RTO team using industry knowledge (content), learning theory (method) and applying flexibility (interest) to their interpretation of the Training Package units relevant to their industry. This team works within their industry and in a skills-centre; together, they encourage a culture of robust learning for the work of the industry, and the work of training.

Pathways into training and work

Training Package units are available to construct learning programs that bridge unemployment and traineeships/apprenticeships.

> I was unemployed at the time and I actually had a friend who actually worked here and he said 'Why don't you try a horticulture access course', which is just a short course that gives you basic skills so you can do the lower level assistant work on site, and so I started that and got through that at the end of 13 weeks and did very well.

Customising training

Training can be made to order. Trainees will choose their training with the RTO facilitator. Units appropriate to their work and learning needs are possible.

> Jo [RTO trainer] is the person who is actually structuring our training, the person who schedules training days and things like that. First we sit down and assess whether you need to do more work, whether you are fairly up to speed so you only need a day, so we actually sit down and talk through what training I actually need. Jo lets me know what training days she's scheduled in and the subjects [units] we'll be doing. There are a number of modules that you need to complete, yes, so you basically sit down with Jo, the person who is organising the assessing, putting together your package for you. You don't get training in the areas that you are not going to be practically carrying out. Sometimes units are added. Just the other day Jo said 'I think I'll put another unit in this area' because it would be good for maintenance of my machinery and things like that.

Trainer as mentor and guide in the learning process

Trainers with both industry knowledge and pedagogical understandings provide possibilities for rich teaching/learning experiences.

> Personally I am getting education as well as getting paid work, which is a hell of a lot better than full-time school on Aust-study, and I also feel I get much more focussed attention than you would in a classroom or more formal situation because you're there one to one with the assessor. I also feel really lucky to be with Jo the way she puts it together because I know her personally, how much effort and genuine, I suppose care for the well being and encouragement and supporting to keep people feeling like they want to keep going, and that reassurance when you're feeling a bit challenged that it's OK, you will get through it.

Flexibility of training content and times

The flexibility of the Training Package Model encourages a proactive response to both learning in and for work. Training can be built around individual trainee learning needs as well as work schedules and weather patterns.

> Since I've started with level 3 [Certificate III, Horticulture Training Package] under the restructured packages the training is really great, much more flexible I found with my situation, and it's really good. I have set things that aren't necessarily urgent I suppose, but I have things set aside in terms of training and learning so that I can utilise a rainy day when I can't actually get out there, and so in horticulture particularly that flexibility is really good …

Learning as an active process

The practical and theoretical knowledge, skills and underpinning knowledge are cross-referenced to enrich the learning.

> Basically we look at the technical and background knowledge that you need to be able to effectively carry out your practical work so, for example, what I am doing at the moment, doing some weed spraying, the underpinning knowledge for that is all your safety chemical use modules-it comes down to manual handling-a bit of maths involved with your calculations of your volumes, and things like that, and also that underpinning knowledge in that respect would be looking at particularly level III now, looking at different products, looking more at the active constituents in the actual products, getting more detailed knowledge so you can utilise that in your practical.

Learning to learn

Learning is a conscious act, calling upon particular skills and understandings.

> When we are doing plant identification or catching up on our files she will get the books out and go with the students and go around and she will say to them 'Do you know how to use this book? Do you know how to look up an index?' And will go around and see that they understand how to use it correctly, and if they don't well obviously she shows them how to use it.

On-site learning as co-construction

This involves learning from and with the work team and RTO trainer.

> A lot of the learning is done through actually being on the job and coming across a situation where you might not be sure of which direction to go next or you make a mistake, which will be pointed out by your supervisor, you don't do it again.
>
> You do most of your learning; well I think I do, in the job.

As Elizabeth describes her training experiences, she gives flesh to the bones of the Horticulture Training Package units that are part of her accredited training journey. Elizabeth is part of a community of practice where learning to work and learning work are synchronous. Literate and numerate practices make this learning possible.

And the final word is hers;

> To be honest I really don't see many down sides to learning. It works really well for me at the moment.

References

Agriculture and Horticulture Training Council of SA Inc (1999) ChemCert: Presenters' Handbook for Language, Literacy and Numeracy in the ChemCert Course.

All in a day's work (Video recording). Rural Training Council of Australia.

Australian National Training Authority (no date) A bridge to the future: Australia's Strategy for Vocational Education and Training, 1998-2003.

Australian National Training Authority (1997) Better training: addressing English language, literacy and numeracy in vocational education and training 1998-2003.

Australian National Training Authority (1999) Policy for Training Packages. http://www.anta.gov.au.

Australian National Training Authority (1998) Updated guidelines for Training Package developers. Melbourne: Australian National Training Authority.

Blunden R (ed) (1997) Teaching and learning in vocational education and training. Australia: Social Science Press.

Boud D and Garrick J (eds) (1999) Understanding learning at work. London and New York: Routledge.

Butler E (1998) Knowing 'now', learning futures. The politics and knowledge practices of vocational education and training. Keynote address, Vocational Knowledge and Institutions: Changing Relationships - sixth Annual International Conference on Post-compulsory Education and Training, Griffith University, Qld.

Castleton G (1999) Understanding work and literacy: (e)merging discourses at work. Melbourne: Language Australia, The National Languages and Literacy Institute of Australia.

Coates S, Fitzpatrick L, McKenna A and Mackin A (1994) National reporting system. Department of Employment Education Training and Youth Affairs and Australian National Training Authority.

Cope B and Kalantzis M (1997) Productive diversity: a new, Australian model for work and management. Australia: Pluto Press.

Department of Employment Education Training and Youth Affairs and Australian National Training Authority (1998) Workplace communication: incorporation of language, literacy and numeracy into National Training Packages.

Du Gay P (1997) Consumption and identity at work. London: Sage.

Fairclough N (2000) Global capitalism and critical awareness of language. http://www.schools.ash.org.au/litweb/norman1.html.

Field L (1996) Skilling Australia. Melbourne: Longman.

Garrick J (1998) Informal learning in the workplace: unmasking human resource development. London and New York: Routledge.

Garton A and Pratt C (1990) Learning to be literate: the development of spoken and written language. Oxford and Massachusetts: Basil Blackwell Ltd.

Gee J P (1992) The social mind: language, ideology and social practice. New York: Bergin and Garvey.

Goulborn B and Alexander A (no date) A new assessment tool. Department of Employment Education and Training.

Gowen S G (1992) The politics of workplace literacy: a case study. New York and London: Teachers College Press.

Kelly A (1999) Literacy practices and clerical competency standards: implications for trainers and assessors. Melbourne, Victoria: Language Australia.

Luke A (1998) Getting over method: literacy teaching as work in new times. http://www.schools.ash.org.au/litweb/page401.html.

Matthews J (1989) Tools of change: new technology and the democratisation of work. Sydney: Pluto Press.

McKenna R and Wignall L (no date) Ten fold returns. Department of Employment, Education, Training and Youth Affairs and Australian National Training Authority.

O'Connor P (1994) Thinking work (volume 1): theoretical perspectives on workers' literacies. Sydney: Adult Literacy and Basic Skills Action Coalition (ALBSAC).

Pocock B (1998) Demanding skill; women and technical education in Australia. Allen and Unwin.

Prince D (1992) Literacy in the workplace. Surry Hills, New South Wales: Adult Migrant English Service.

Rural Training Council of Australia. Industry Training Packages, TP Review, Learning Resources, Assessment Guides, Curriculum Mapping, Competency Standards. http://www.rtca.farmwide.com.au.

Rural Training Council of Australia and Australian National Training Authority (1999) Succeeding with the agriculture Training Package.

Searle J (ed) (1999) Social literacies across communities, cultures and contexts. Melbourne: Language Australia.

Wignall L (no date) Built in not bolted on. Department of Employment, Education, Training and Youth Affairs and Australian National Training Authority.

Contact details

Ruth Trenerry
Research Assistant, Education
University of South Australia
Holbrooks Rd, Underdale
South Australia 5032
Ph: +61 8 8302 6489
Fax: 61 8 8302 6315
Email: ruth.trenerry@unisa.edu.au

Learning from small enterprise structured work placement

James Mulraney

Seaview High School, South Australia

Peter Turner

Curriculum Policy Directorate, Department of Education, Training and Employment, South Australia

Recent research in Sydney and Adelaide has pointed to the need for rethinking student placement in small businesses. Employer / business owners point to their lack of input to school curriculum and methodology, with the consequent mismatch of student learning and business needs. Student vocational education and training (VET) program and Training Package requirements are most unlikely to be met in this currently school-driven model. The authors point to emerging models of good practice that allow for and encourage more employer and student input, while shifting the focus of the on-the-job training to a more action learning model centred on developing enterprise and generic employability skills.

Small enterprises in Australia provide substantial employment (approximately 65%) for young Australians and represent about 90% of all enterprises in Australia (Robinson 1999, p 3) and will continue to do so into the foreseeable future.

With the structural changes to Australia's training system, very little is actually known about the relationship VET (and in particular, structured workplace learning - SWL) may be generating between schools and small enterprises. Apart from a study conducted by Smith et al (1996), there has been very little research of small enterprise training demands and their support (if any) of structured work placements for school-age adolescents.

Small enterprises and the vocational education sector have very different goals, methods and practices (Harris et al 1997). Research into (apparent) successful partnerships between schools and small enterprises in relation to SWL may result in the development of good practice models, and a theoretical framework for SWL that supports schools and small enterprises to work together to improve the relevance of schooling to workplace practices.

In any discussion about small enterprise workplace learning, it is important to articulate what is meant by SWL. In their review of the literature, Cummings and Carbines (1997) suggest the following about workplace learning and structured work placements respectively:

> Learning that occurs in workplaces. Workplace learning is commonly used synonymously with structured workplace learning or structured work placements. It is commonly contrasted with work experience, from which industry-determined predefined learning outcomes and assessments are absent.

> Periods of workplace learning in which defined learning outcomes have been set down for students to achieve while they are in the workplace. These learning outcomes commonly reflect industry-defined competency standards. Structured work placements normally require these pre-determined outcomes to be formally assessed. Structured work placements are commonly contrasted to work experience, in which industry-determined pre-defined learning outcomes and assessment are absent.

A more detailed definition comes from MCEETYA (1997):

> There are a range of stakeholders in the delivery of structured workplace learning to secondary students. At the state/territory and national levels, stakeholders include ITABs, industry associations, area consultative committees, education authorities, while at the **local level** the immediate stakeholders are employers/workplace supervisors, schools/providers, program coordinator and industry-education advisory committees.

Methodology

The research was conducted in small enterprises and schools in South Australia (SA) and New South Wales (NSW) to ascertain differences and similarities in approach to SWL and the impact of public policy (via public education) in establishing effective partnerships between schools and small enterprises. The study was limited to the metropolitan area only at the request of the National Centre for Vocational Education Research (NCVER). The data collected were analysed to identify 'critical exemplars' (Gibson 1997) of good practice in school workplace learning in small enterprises. These 'critical exemplar' indicators were used to construct the case studies of good practice.

In each state, four high school SWL programs with small enterprises were selected for the study on the recommendation of the respective education departments' response to support schools to be a part of the study. A total of 41 students were interviewed, generally in small groups of three to five students. This method was chosen as the researchers thought the young people would add to each others' comments and provide a better overview of what actually happens than if interviewed in isolation. In discussion, the young people reported being more comfortable with their peers and more willing to discuss a broader range of issues than if they were on their own.

A total of 18 staff who had major responsibility for VET in the schools or who were administering the project which was the subject of this study were individually interviewed. Additionally, where possible, the principals of the schools in the study were also interviewed.

A much larger number of small enterprises were involved in the study. Once a school SWL program involved with small enterprises was identified, the study attempted to interview a representative of each enterprise. On most occasions the person responsible for the supervision of students on work placement was interviewed. A total of 26 small enterprise personnel were interviewed across eight industry sectors.

Literature review summary

A national and international literature review was undertaken of contemporary (last five years) research and supporting texts and journal articles related to VET in schools - workplace learning projects and exemplars. While the study found much literature related to school-based VET and SWL programs, there is little real connection to small enterprises other than as a site for students to complete a placement.

As Ryan (1997), in reviewing the research literature, put it:

> There is a substantial body of literature on vocational education in schools but, while extensive, it is characterised more by pamphlets, pronouncements, manifestos and ministerial statements than by research findings, even in the broadest sense of the term. However, sufficient material of substance exists to identify some firm conclusions and a range of emerging issues.

The literature reviewed in relation to SWL identified a diversity of emerging issues. Roberts (1994) talks of mentoring as a methodology for small enterprises to combat youth unemployment and to ensure a greater take up of small business careers by such young people. Childs (1997) builds on this approach by proposing learning partnerships where small enterprise work is seen as curriculum and all participants are learners who mutually benefit from pooling their competence and experience. A strong cyclical impact in work-based entry level training on trends in skill formation is identified by Lundberg (1997).

Roberts (1995) adds to the work of Connell et al's *Making the difference* (1982) in finding cultural reproduction to be evident, particularly where school and family values match. Importantly for this research, he indicates an emerging role for workplace learning as an intervention stratagem reaching both reproduction and economic effects on working class youths who don't fit the system.

The career pathways approach of Cowan (1996) argues that business and educators should work together to help teachers bring workplace relevance to their classrooms and provide lessons developed by both. Bagnall (1996) takes this further in a research project on workplace learning within small enterprises in the field of tourism, with an analysis of the nature and ethical implications of embeddedness (as education and training) in the workplace, arising from contemporary convergent influences.

Competencies within workplace knowledge are a feature of research by Bevan (1996) to identify workplace skills and knowledge required by small enterprise owner-operators in the tourism-hospitality field. Middleton (1996) discusses the extent to which problem-solving competencies are generic and applicable to all workplace settings, while Kanes (1996) argues that generic competencies within workplace vocational knowledge are bound to specific contents. Cumming and Carbines (1997) discuss connections and relationships established between schools and their communities and argue that such projects have a potential to influence the wider context of community development, and on a much larger scale. Bringing the community into the school, authenticating learning environments beyond the school and generating new forms of partnerships will require ongoing school reform.

Morgan (1994) articulates that small enterprises' chief concern is to recycle their current workforce and not to participate in school-to-work transition programs. Employers cite the lack of appropriate screening, the need for greater application of skills required by employers and the need for greater flexibility to improve the incentive to study for non college-based students. A second study by Morgan (1994) found employers praised the quality and contributions of young workers.

Childs (1997), and to a lesser extent Kelleher and Murray (1996), refer to action learning as another response to what small enterprises need in workplace learning. Childs suggests a very different view of curriculum from that defined by schools, and points to a much more challenging and potentially rewarding model that would require a closer relationship between school and the workplace. She also discusses a Certificate III in Business New Enterprise Formation that uses action learning as a basis for enterprise development. The certificate is action-based rather than curriculum-based learning, and builds in small business real time and real contexts as an 'implicit rather than accidental philosophy of the learning program'. The certificate is the first of its kind in Australia and creatively interprets national qualification standards.

In Australia, the Australian Student Traineeship Foundation (ASTF) has published a variety of descriptions of school industry programs (for example, Ainley and Fleming 1997). Athanasou (1996) discusses the Australian experience:

> School-based cooperative vocational education in Australia is of recent origin and no more than about six years old. It involves structured school and work programs that allow students to learn in occupations related to a field of study and attend school during the same time period. This combination of school and work has evolved:
>
> (a) in response to significant changes in the efforts of students completing secondary schooling
>
> (b) as an attempt to foster experiential learning
>
> (c) to help young people learn specific skills and knowledge related to their course work; and
>
> (d) to assist them in order to qualify for a full-time job or further education.

He also recognises that there are two noticeable differences in Australian school-based vocational programs from overseas experiences. Australian students attend workplaces voluntarily and they are able to access dual accreditation (that is, state secondary certificates of completing high school and industry-specific training qualifications).

Wyatt and Rush-Matthews (1996) point to the need for more substantial and detailed research to enable a clearer picture of small and medium enterprise (SME) demand for training. They also illustrate the lack of sensitivity to SME needs shown by training providers. Smith et al (1996) agree that there is little industry-specific knowledge of SME training needs and that there will be a wide variance in the requests for support depending on industry, economic cycle and individual SME age and development criteria. Harris et al (1998) confirm the very different goals of small enterprises and educational institutions, while pointing to the need for publicly funded VET providing institutions to build closer partnerships with small business.

The Karpin Report (1995) provided an overview of literature since the 1980s, describing why small business is resistant to training and the failure of training providers to meet its needs. Amongst the reasons were the fact that training programs were too general and not targeted to small enterprise needs, small enterprise lacked conviction that training was useful, and the usual issues of time, quality of training and cost (Gibb 1997).

A case study of an Australian example is that of Patterson (1992). The study emphasises two points of focus: credit transfer arrangements for Victorian Certificate of Education (VCE) advice programs, and identification of the need for work education and careers advice programs in years 7-10 to ensure that the full range of post-school pathways is understood. In support of this focus, the Taskforce on Pathways in Education and Training (1992) concluded that despite some cooperative arrangements, the sectors of our education and training system operate too much as separate worlds. That separateness, coupled with some industrial, cultural and financial rigidities, means valuable community resources are under-utilised. Change is needed within the sectors as well. The approaches suggested include cooperative education agreements between schools and employers, youth apprenticeships (paid), employer mentoring, integration of work-based and school-based learning, and integration of academic and vocational learning.

Key themes from small enterprises

The range of small enterprises included hospitality, retail, office management, finance, telecommunications, clubs (for example, golf, bowls, service), furniture construction and food preparation. The following key themes emerged from these interviews with the small enterprise employers.

Understanding of SWL

The pressure of 'time' and the 'inability to have worthwhile dialogue' with schools and employer associations (hospitality, telecommunications, furniture construction) were the main reasons put forward why small enterprises were unsure of actually what defines SWL.

Understanding of reforms associated with the Australian training system

While there is a considerable wealth of information available about the Australian training system, most small enterprises do not have the time to digest it fully or understand their place in it.

Characteristics required by the students

Small enterprises reported that the characteristics they were looking for in students included: 'a willingness to learn' (all); 'commitment' (service, hospitality, retail); 'a responsible attitude' (hospitality, finance, service); 'motivation' (all); 'problem-solving and cooperation' (hospitality); an 'open and observing mind' (service, finance); 'a strong sense of personal integrity' (service); 'wanting to be there, showing initiative and asking questions' (retail, hospitality); and 'being prepared to work' (all).

Learning

Whilst employers acknowledge 'the time students are in the workplace limits how much they learn, as does the level of skill they bring to the job initially' (hospitality, retail, finance), they are quick to point out that students 'are successful when they want to learn' (hospitality); 'come with a positive attitude' (service, finance); 'listen clearly to instructions' (furniture construction); and 'enjoy their work' (service). Small enterprises view a positive outlook and a willingness to try new things as fundamentals the students need to bring to the workplace.

Length of time of structured work placements

Employers commented it was important in the negotiations with school personnel to suggest or recommend the best length of time for the work placement to meet their needs as well as those of students. They thought there would not be one preferred model but that individual small enterprises would respond as best they could.

Benefits for small enterprises

The benefits for the small enterprises included: 'a recruitment tool' (hospitality, retail, service); 'a sense of community obligation because many kids miss out' (hospitality, service, furniture construction); employers got 'a free look at potential employees' (service); 'students take some of the strain from the day to day workload' (hospitality, service); and it was great 'to have an extra pair of hands' (hospitality). Other employers who 'had difficult personal experiences of their own, felt empathy for the students' situations and were keen to help out where they could' (service, hospitality, retail, finance).

Benefits for students through participation in SWL

All interviewed employers responded positively about the benefits for students. Comments included: 'hands on experience' (hospitality, retail, food preparation); 'exposure to new work' (finance, telecommunications); 'experience of real life in the world of work' (all); 'understanding of the need for punctuality' (service, hospitality); 'responsibility that comes from working in a team situation is realised' (retail, office, service); 'improvements in attitude toward work and achieving goals' (service, food preparation); and 'an increased realisation that independence is important in the workplace' (service, retail), as workers are not always totally supervised.

Continuing with SWL programs

Most employers indicated that, despite their limited understanding of the Australian training system (in particular structured work placements) and their belief that benefits mostly flowed to students and schools, they were prepared to continue with work placement programs.

Greater involvement in SWL

Most small enterprise representatives claimed that greater involvement by them in the establishment and planning of SWL would be of benefit (subject to time constraints), though the advantage was seen to be mostly to the student or school.

Key themes from schools

The researchers consulted with two different sets of stakeholders within the eight participating schools in NSW and SA. Students were interviewed in small groups to facilitate open dialogue and support, and add value to the comments of each other. School administrators (eg principals, VET coordinators – both regional and school-based) were interviewed individually. A range of themes emerged from the research and the following is a summary of the findings from the school perspective.

Strong interest in vocational education and training

School administrators in both states strongly believed in vocational education programs and were keen to take up any new opportunities for increasing their students' exposure to vocational options and structured work placements that were directly relevant to their students' courses.

Impact of the introduction of vocational education and training in schools

VET is having a significant impact in schools. While much of it has been positive there are also indications of concerns. Administrators in both states indicated 'change in schools was shufflingly slow, with the existence of real structural impediments to change'.

Structured workplace learning is different from work experience

Both school administrators and students generally agree that SWL is far better than the (older) notions of work experience.

Priority given to SWL

The negative views expressed by school personnel were about status, legalities, time and difficulties in managing students. On the positive side, schools reported that 'structured workplace learning was seen to enhance the image of the school in the community'.

Positive learning experiences

On the whole, students reported positive learning experiences whilst on structured work placements.

Lessons learnt by students

Students reported on lessons they had learnt from their involvement in SWL. Their comments strongly reflected that the key lessons were about workplace relations rather than technical tasks.

What employers are looking for

From the school perspective, the prevalent belief is that employers are looking for people who are 'flexible'.

Schools' contribution to SWL

In both states, school personnel strongly believed that schools were making a major contribution to the development of SWL in their communities.

Impact of log books

Both students and teachers believed that logbooks provide structure to VET and provide a focus to small enterprises on what, and how, to assess students. Students were impressed with the logbooks and thought they provided the structure that employers wanted and the articulation of the steps they needed to follow to be successful. Indications of their support of the log book are reflected in the following comments.

Negative learning experience

Although students were generally positive about the learning experiences of SWL, most of their negative comments are related to repetitive tasks, narrowly based opportunities, or inappropriate placements given student interests or prior work experiences.

Barriers to overcome

School administrators often felt frustrated with small enterprises whom they believed still saw work experience as the desired outcome. Despite efforts to teach/convince employers about changes in the training system, it seemed entrenched views were hard to move forward.

Schools have a strong interest in VET and believe it has had an impact. They also recognise they have a long way to go if SWL is to be a major priority of academic and vocational courses. While schools continue to use work experience, there is a growing need to educate their staff, and personnel in small enterprises, to move into SWL with its focus on learning and work competencies.

Case studies of good practice

Information gathered from the many workplace learning situations was analysed and synthesised into three exemplars illustrating different aspects of good practice.

Exemplar 1: Information technology, small business and school links project

The foundation of this exemplar is a recognition of three factors. First, small business often does not have the skills or knowledge to understand or apply new information technology applications to its operations, and that in the day-to-day operation of the business there is not the time to learn these skills when under the pressure of running the business. Second, there are a number of information technology applications that can be applied to small business to enhance its profitability and to modernise the business. The ramifications of enhanced profitability may result in new employment possibilities being opened up. Third, schools have students who have well developed information technology skills in a range of applications that are relevant to the successful operation of a small business enterprise. These students would therefore benefit by the application of these skills in a real work environment and, through a process of also understanding the operation of small business, would improve their employability in the labour market.

Exemplar 2: The brokerage model - informing the theory and practice of VET

A project has been established as a regional pilot to broker workplace learning and VET between the schools and small business. The project has a mix of staff from small business and education backgrounds. The intersection of the skills and backgrounds of the staff creates a dynamic work environment, where understandings are further enhanced and where it is possible to create new strategies to further workplace learning. At the local and regional level, the project is working to forge partnerships between the schools and small business enterprises.

Exemplar 3: Partnerships - VET and small enterprise training

A community has forged a formal memorandum of understanding between schools, TAFE and small enterprises. The aim of the partnership is to help young people build the best foundations for the future by providing them with opportunities to experience careers that interest them. The project has a formal structure outside of the school environment and is a registered training organisation (RTO). It was formed initially to improve vocational education in the region.

Development of a theoretical framework

Schools, education systems and business representatives are endeavouring to sort out the shape of workplace learning, often without having any broad understanding of **why** they are engaged in the activity, **how** to measure it, **how** to evaluate the outcomes, and **what** it might look like in their own context. Schools have not sufficiently developed or been given the tools to use to fully accredit the learning that takes place in the workplace, and not all parties are actively engaged in effective dialogue leading to resolution of these issues at the local level. Small enterprises are becoming increasingly disillusioned in trying to navigate through changes in policy and programs in this area with little support. Students may still have outdated notions of workplace learning as being the same as work experience, and some have not recognised the opportunities that workplace learning can present.

Structured workplace learning is part of a learning environment

In a student-centred pedagogy, the pivotal stakeholder is the student (see Figure 1). This concept of education allows the student to relate what he or she is studying in the school environment with what is learnt from the work placement. In general terms the workplace is meant to provide some *experience* which would give the student some *understanding*. These *experiences* and *understandings* are often conceptualised in very broad generic terms, with little process for linking back into the school to inform the curriculum.

Figure 1: A model of student-centred pedagogy

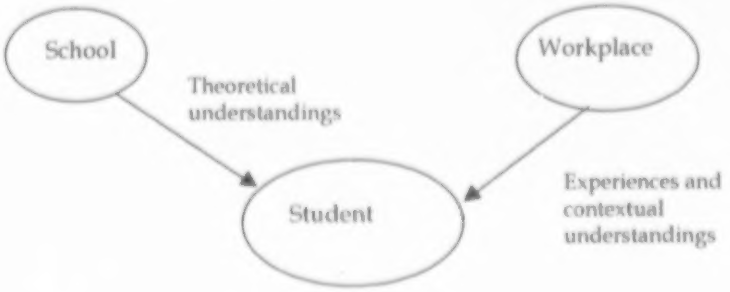
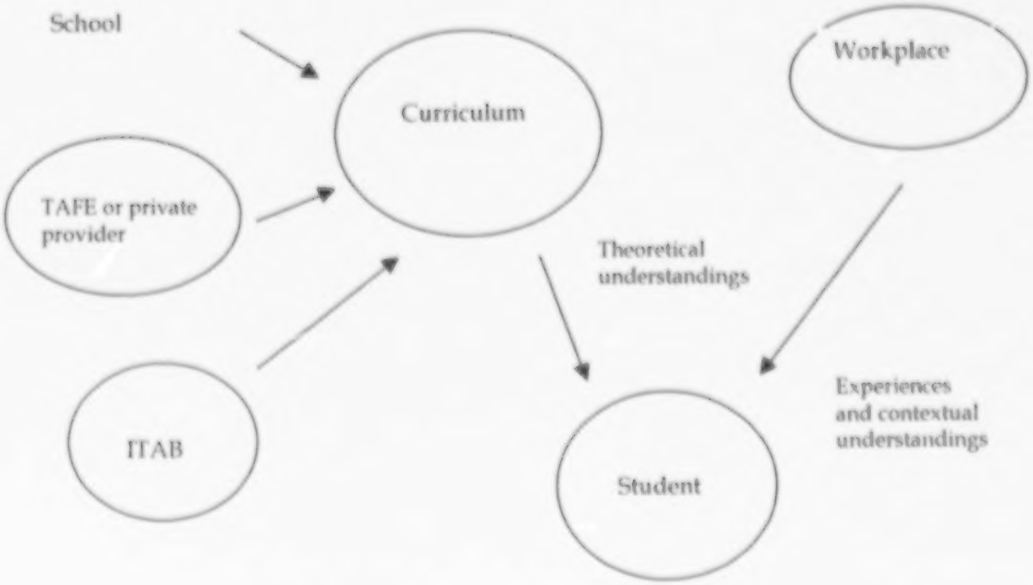
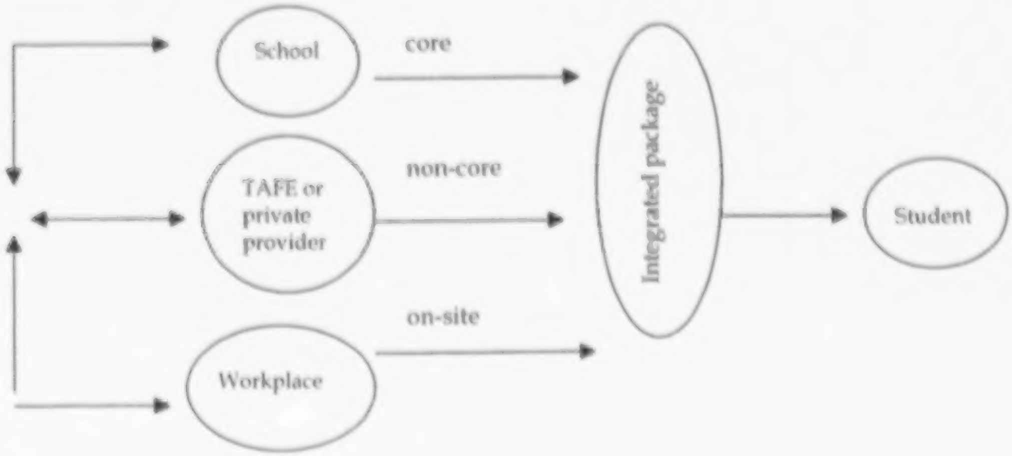

School
Workplace
Theoretical understandings
Student
Experiences and contextual understandings

Figure 2: An adapted model of school, student, TAFE, ITAB, business and industry


School
Curriculum
Workplace
TAFE or private provider
Theoretical understandings
ITAB
Experiences and contextual understandings
Student

In the Figure 2 model, the student can develop industry-specific competencies that have been learnt in the workplace. The clarification of what competencies have been developed in the workplace, the school and TAFE, have been carved up between the stakeholders, and all that is required is for the student to learn these competencies and be assessed by each of the parties to varying degrees to gain accreditation. The model in Figure 3 has the potential to provide SWL which gives all stakeholders a role in the design, delivery and assessment of the learning that occurs. However, it is most beneficial when utilised with big business which has the training resources to be involved, or with a representative association of employers (as in the case of the Motor Traders Association).

Figure 3: School, student and workplace linkages



An initial local level partnership - what is the benefit to the small business?

At a local level it becomes more possible for schools to develop links with small enterprises which can inform the design of workplace learning. There are, however, implications for the resourcing, training and involvement of both parties. If these barriers can be overcome, there exists a possibility for schools and small businesses to form local level partnerships, where the small business can have an input into what its role may be in the students' learning and the benefit of providing workplace learning. Further development of these models at a local level would need to begin to blur the boundaries that separate the school and the workplace.

We are in small enterprises, thank you - a more developed model

With 32% of small enterprises not surviving the first year and only 8% surviving past ten years, the interest of these businesses in, and the time that they can allocate to, workplace learning must be regarded as minimal at best, within the current paradigm.

The prime function of any business at a micro level is to make money; to remain in business. However, the relationship between the school, the student and the small enterprise has to be seen in a radically different light.

There is a need to examine ways in which the student or the school can *value add* to the prime role of the small enterprise, in the same way as the small enterprise is asked to value add to the student's learning and meet the requirements of the prime function of the school in provision of student education and links to the labour market. The first step in this direction is to come to view the student as an active participant in the process. The student brings skills, attributes, attitudes and outside knowledge to the workplace that can enhance the operation of the small enterprise.

In business terminology, there is a *transaction* occurring which can have mutual benefit.

What the small enterprise can offer:

- a more personal and supportive work environment conducive to mentoring
- knowledge about the operation of the small enterprise as a whole entity
- product knowledge
- links to other small enterprises and local networks
- an opportunity to develop enterprise skills of a generic nature
- practical experience of the world of work
- possible future traineeship or apprenticeship opportunities.

What the school can offer:

- a pool of skilled young people who can value add to the enterprise
- community recognition for participating small enterprises
- accreditation for the student
- staff support to the student and the small enterprise
- management of the placement
- information about various VET initiatives, traineeship and apprenticeship programs and possible wage subsidies
- assistance with assessment processes and instruments
- access to different community networks for the small enterprise
- back up and support of a large school community.

What the student can offer:

- another pair of hands to the operation of the small enterprise or a particular product
- skills and knowledge that may not currently exist within the small enterprise (for example, IT and graphic design skills)
- staffing to overcome a temporary problem facing the small enterprise
- an outside and youthful perspective on the operation of the small enterprise
- product design, development and marketing ideas.

In using this notion of a business transaction, the benefits to each player can be clearly documented and all parties are engaged in a learning partnership which can be an active and ongoing process.

The missing stakeholder - refining the partnership and the transaction

Schools, small enterprises and students are not operating in a vacuum where learning occurs in isolation from other dynamics. The student learns from family, peers and a whole range of community structures as well as the school and the workplace environment. The school and the small enterprise operate within a community context which is the milieu of their operation. If the community is severely socially disadvantaged with high levels of welfare dependency, then the expectations of the school, the student and the small enterprise can be significantly lowered. The transaction between the stakeholders is consequently diminished. All four parties need to be viewed as a part of the transaction with an analysis of the benefit to each party, and all are part of a learning partnership. To be stakeholders in a learning partnership, each party needs to identify why they are participating, what they bring to the transaction, how they propose to undertake it and what they potentially gain from it.

This model of a learning partnership between the stakeholders has the potential to rejuvenate communities and develop enterprising communities where all sectors of the community have a role to play. The model stresses the importance of the 'transaction' as being pivotal to an analysis of workplace learning, and brings workplace learning back into its relevant context.

Small business and enterprise - what small business wants in employees

Small business is by its very nature enterprising, yet generally the school is not teaching young people enterprise skills. This is central to the relationship between the school and business and industry generally. There is very often a cultural gap in each other's perceptions of what skills and attitudes young people need to have in order to be work ready.

A survey of recruitment practices by Australian companies undertaken by the National Industry Education Forum of the Business Council of Australia in 1995 (Stanton 1995) found the following types of responses to the question 'Could you describe the major competencies/attributes that you look for in recruiting staff from outside the organisation for entry-level positions at non-graduate or management level?':

- interpersonal skills
- initiative, adaptability, flexibility
- hire the smile and attitude and train the rest
- ability to want to learn
- we believe that you can train skills and knowledge, not attitude
- motivated self-starter, initiative, flexibility, independence, drive
- ability to think broadly
- ability to embrace change.

Transition from student-centred pedagogy to adult learning

Workplace learning is a time of transition, when students are moving from one set of learning principles where they have been generally dependent in the learning process toward a more independent adult learning model. In this time of transition, the student has a foot in both camps. The role of the mentor in this situation is critical. The mentor is the person who assists the transition between learning styles, and in essence assists the young person through a 'rite of passage' into the adult world.

If the student is moving into an adult learning model, then it is also informative to examine the characteristics of an adult learner. Such a model is based on four crucial assumptions (according to Knowles 1984) about the characteristics of adult learners that are different from assumptions about child learners. As persons mature:

- their self-concept moves from being a dependent personality toward one of being a self-directing human being;
- they accumulate a growing reservoir of experience that becomes an increasing resource for learning;
- their readiness to learn becomes oriented increasingly to the developmental tasks of their social roles; and
- their time perspective changes from one of postponed application of knowledge to immediacy of application.

Roles of the stakeholders in a learning partnership

The student needs to have a good understanding of the theory of what they are being taught in the school; to be able to observe the workplace and experiment and apply knowledge in a real context outside the school environment; and to reflect on the experience and to make sense of it. They also need to be able to relate the results of this process back to the school to inform future developments.

The school needs to ensure that what is being taught is capable of being applied and is of relevance in the workplace. They also need to allow for and encourage modification in the light of feedback from students, employers and the community. The school also needs to be involved in active experimentation to advance its theory and knowledge base. The workplace needs to be cognisant of what is being taught in the schools and the extent to which it is relevant in the workplace.

The business also should be prepared to modify and adapt its function in the light of new ideas and emergent technologies.

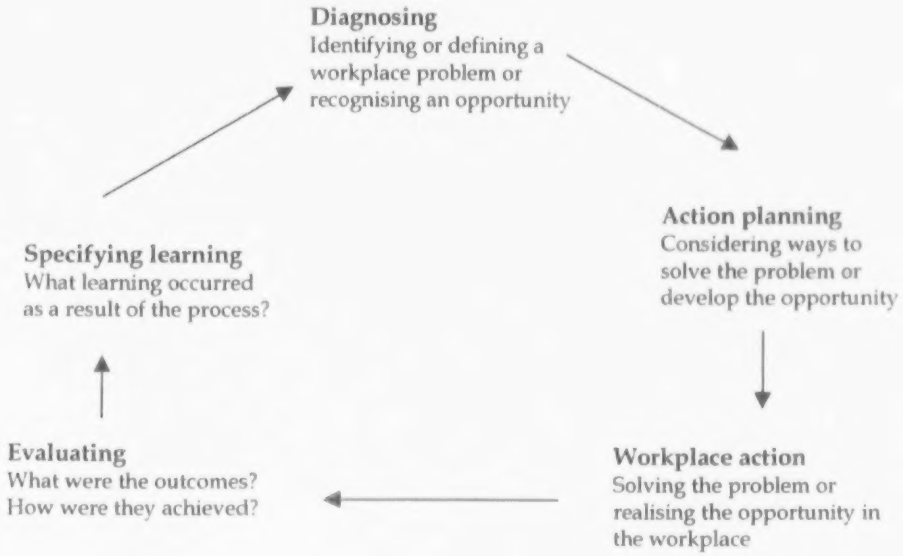
What an enterprising learning partnership could look like

To most effectively market appropriate and relevant skills to small business, enterprise learning seeks to develop competencies in students that comprise some 65% of the Australian workforce - and yet have been the most neglected form of school learning. Enterprise learning cannot be *taught* in isolation from the *experience* of the workplace and the community. For enterprise learning to occur, there needs to be a partnership between schools and small business enterprises where theory and practice can be integrated into the student's praxis. The resultant experience of *success* leads to attitudinal change and development of a range of competencies which enhance the employability of the student.

The action research process

Put simply, action research is *learning by doing* - a group of people (school, small enterprise, community agency, local government, students) identify a problem, do something to resolve it, see how successful their efforts were, and, if not satisfied, try again. Kemmis (1998) has developed a simple model of the cyclical nature of the typical action research process. Each cycle has four steps: plan, act, observe and reflect. When applied to the learning partnerships that are being proposed, the model could take on a shape as in Figure 4, which involves all the partners in the process and the outcomes of the process.

Figure 4: The action research process applied to a learning partnerships model


Diagnosing
Identifying or defining a workplace problem or recognising an opportunity
Action planning
Considering ways to solve the problem or develop the opportunity
Workplace action
Solving the problem or realising the opportunity in the workplace
Evaluating
What were the outcomes? How were they achieved?
Specifying learning
What learning occurred as a result of the process?

Summary

The theoretical framework developed in this section provides a model that moves SWL away from its narrow perspective into a whole of community and adult enterprise learning framework. This study has shown there is an urgent need to further improve the relationships between schools and small enterprises, to foster SWL for young people. The case studies of good practice provide a strong indication of the type of directions that would be taken. The theoretical framework reinforces the need for partnerships within the community.

Authors' note

This paper is a summary of a larger research report which fully analyses the research project 'Small Enterprise Workplace Learning – Links to School Vocational Education', which will be available from NCVER later this year. The researchers were James Mulraney, Peter Turner, Roger Harris, Frank Wyatt and Teri Gibson.

References

Adkisson DL and Lane S (1995) Tech prep and school-to-work = career pathways. NASSP Bulletin, vol 79, no 574, November, pp 34-38.

Ainley J and Fleming M (1997) School-industry programs national survey 1996. Sydney: Australian Student Traineeship Foundation.

Anisef P and Axelrod P (eds) (1993) Transitions: schooling and employment in Canada. Toronto, Ontario: Thompson Educational Publishing.

Atweh W, Kemmis S and Weekes P (1998) Action research in practice: partnerships for social justice. United Kingdom: Routledge/MacMillan, p 151.

Australian National Training Authority (1996) Small Business Training Policy Framework. Brisbane: Australian National Training Authority.

Australian Student Traineeship Foundation. Tips for industry/education partnerships: the difference between SWL and work experience (brochure).

Athanasou J (1996) Some features of school-industry programs in Australia: a study of cooperative vocational education projects. Australian and New Zealand Journal of Vocational Education Research, vol 4, no 1, pp 1-13.

Bagnall RG (1996) The nature and ethics of workplace learning embeddedness. In J Stevenson (ed) Learning in the workplace: tourism and hospitality. An initial examination of critical aspects of small businesses in the tourism and hospitality industry. Centre for Skill Formation Research and Development, Griffith University, Mt Gravatt, Queensland, pp 229-243.

Baker M (1995) VET and the training needs of small business. In M Baker and M Wooden (eds) Small and medium sized enterprises and vocational education and training. Adelaide: National Centre for Vocational Education Research, pp 137-152.

Beckett D (1994) Workplace learning: managing cultural change. In F Crowther, B Caldwell, J Chapman, G Lakomski and D Ogilvie (eds) The workplace in education: Australian perspectives. Rydalmere, New South Wales: Edward Arnold Australia, pp 276-285.

Beven F (1996) Implications for training of context-dependent knowledge. In J Stevenson (ed) Learning in the workplace: tourism and hospitality. An initial examination of critical aspects of small businesses in the tourism and hospitality industry. Centre for Skill Formation Research and Development, Griffith University, Mt Gravatt, Queensland, pp 179-186.

Callus R (1994) Research priorities for small business. In Research priorities in vocational education and training: a discussion. Adelaide: National Centre for Vocational Education Research, pp 15-31.

Childs M (1997) A slight breathing space. University of Western Sydney, Work Based Learning Designated Research Group.

Connell RW, Ashenden DJ, Kessler S and Dowsett GW (1982) Making the difference: schools, families and social division. Sydney: George Allen and Unwin.

Cowan L (1996) Community connections workplace applications handbook, 1995-96. A business education partnership project. Bellingham, Washington: Whatcom County Tech Prep Consortium.

Cumming J and Carbines B (1997) Reforming schools through workplace learning. Australian Centre for Equity through Education.

Dykman A (ed) (1996) Powerful partnerships for school-to-career success through business and education cooperation. Alexandria, Virginia: American Vocational Association.

Ellyard P (1997) Learning vocations of the 21st Century. Presented at Building workplace learning communities - Career Educators Association of Victoria Conference, LaTrobe University, Bendigo Campus, July 16-18.

Firebrace S (1995) Skills for the future: small business. Towards a Skilled Australia: National Conference on Vocational Education and Training - inaugural conference of the Australian National Training Authority, Brisbane, 8-10 February. Canberra: Australian Government Publishing Service, pp 231-234.

Fuller DE and Forsaith DM (1994) Training and competitiveness in the small enterprise sector: evidence from the plastics industry. In Proceedings of The People Factor in Small Enterprise - joint conference of the Small Enterprise Association of Australia and New Zealand and the Institute of Industrial Economics.

Funnell B and Ainsworth P (1996) The nature of the tourism market as an occupational field and the place of small businesses and training within it. In J Stevenson (ed) Learning in the workplace: tourism and hospitality. An initial examination of critical aspects of small businesses in the tourism and hospitality industry. Centre for Skill Formation Research and Development, Griffith University, Mt Gravatt, Queensland, pp 245-289.

Gibb J (1997) Review of research: VET and small business. Adelaide: National Centre for Vocational Education Research.

Gibson T (1997) Critical exemplars: using Flannagans critical incident technique to describe critical aspects of practice (submitted to the British Journal of Advanced Nursing).

Grant M, Newey D and Spanglett G (1997) Youth enterprise. Paper prepared for the International Development Centre, Canada.

Harris R, Simons M and Bone J (2000) More than meets the eye? Rethinking the role of workplace trainer. Adelaide: National Centre for Vocational Education Research.

Harris R, Willis P, Simons M and Underwood F (1998) Learning the job: juggling the messages in on- and off-job training. Adelaide: National Centre for Vocational Education Research.

Harvey MJ (1984) Pupil awareness of the career pathways and choice points in the high school. Educational Review (UK), vol 36, no 1, pp 53-66.

Kanes C (1996) Using mathematical ideas and techniques. In J Stevenson (ed) Learning in the workplace: tourism and hospitality. An initial examination of critical aspects of small businesses in the tourism and hospitality industry. Centre for Skill Formation Research and Development, Griffith University, Mt Gravatt, Queensland, pp 51-111.

Karpin D (1995) Enterprising nation. Report of the Industry Task Force on Leadership and Management Skills. Canberra: Australian Government Publishing Service.

Kelleher J and Murray J (1996) Action learning as an example of work based learning. Research and practice: building the links - conference papers of the Victorian VET Research Conference, Edmund Barton Centre, Office of Training and Further Education, Melbourne, 12-13 October 1995.

Kemmis S and McTaggart R (eds) (1998) The action research reader. Geelong: Deakin University Press.

Knowles M (1973) The adult learner - a neglected species. Houston: Gulf Publishing.

Kohl DA (1984) Experiential learning: experiential learning as the source of learning and development. New Jersey: Prentice-Hall.

Lundberg D (1997) Review of research: entry level training. Adelaide: National Centre for Vocational Education Research.

Middleton H (1996) Solving complex problems. In J Stevenson (ed) Learning in the workplace: tourism and hospitality. An initial examination of critical aspects of small businesses in the tourism and hospitality industry. Centre for Skill Formation Research and Development, Griffith University, Mt Gravatt, Queensland, pp 112-122.

Misko J (1998) School students in workplaces – what are the benefits? Adelaide: National Centre for Vocational Education Research.

Morgan S (1994) Challenge: to identify the incentives that would encourage employers to participate in work-based learning programs in order to prepare young workers to secure and succeed in full-time jobs. EQW Issues no 6, National Centre on the Education Quality of the Workforce: Philadelphia, PA. Washington, DC: Office of Educational Research and Improvement.

Morrow A (1996) Vocational education in secondary schools - a policies perspective. In F J Bonaventura (ed) Flexible futures: vocational education and training in Victorian secondary schools. Career Education Association of Victoria, pp 5-14.

Muraski EJ and Whiteman D (1991) An employer needs assessment for vocational education. California: Porterville College.

National Board of Employment, Education and Training (1994) The role of schools in vocational preparation of Australia's senior secondary students: a discussion paper. Canberra: Commonwealth of Australia.

North Carolina State Department of Community Colleges (1995) A matter of facts: the North Carolina Community College System Fact Book, 1995. North Carolina: Raleigh.

Patterson A (1992) Pathways between schools and TAFE: Mowbray College case study. Jolimont, Victoria: Incorporated Association of Registered Teachers of Victoria (IARTV).

Raber SM and Merchlinsky SR (1995) An evaluation of the Southern Maryland Educational Consortiums Tech Prep Program: final report, COSMOS Corporation, Bethesda, MD, Southern Maryland Educational Consortium, La Plata. Washington, DC: Office of Vocational and Adult Education.

Roberts DA (1995) Making the transition - cultural reproduction in the marketplace. Unpublished thesis, University of Melbourne.

Robinson C (1999) Promoting a training culture in industry. In C Robinson and K Arthy (eds) Lifelong learning. Developing a training culture. Adelaide: National Centre for Vocational Education Research, pp 1-22.

Rouse C (1995) Tech Prep career passports for rewarding futures. NASSP Bulletin, vol 79, no 574, pp 39-45.

Ryan R (1997) Review of research: vocational education in schools. Adelaide: National Centre for Vocational Education Research.

Schoelkopf J (1995) Frequently asked questions about tech prep/school-to-work career pathways. NASSP Bulletin, vol 79, no 574, pp 14-18.

Smith A, Roberts P, Noble C, Hayton G and Thorne E (1996) Enterprise training: the factors that affect demand. Final report, volume 1. Melbourne: State Training Board.

Stanton J (1995) Business, industry and key competencies. National Industry Education Forum, Melbourne.

Sungaila H (1994) Education, work and training, a postmodernist thought. In F Crowther, B Caldwell, J Chapman, G Lakomski and D Ogilvie (eds) The workplace in education: Australian perspectives. Rydalmere, New South Wales: Edward Arnold Australia, pp 246-251.

Taskforce on Pathways in Education and Training (1992) Report. Department of School Education, Ministry of Employment, Post-Secondary Education and Training, Melbourne.

Theders R (1994) Model partnership with a large corporation: partnership model: the Clark-Theders Insurance Agency, Inc. In A Dykman (ed) (1996) Powerful partnerships for school-to-career success through business and education cooperation. Alexandria, VA: American Vocational Association.

Thompson M (1992) Key competencies in small business. Focus on communications and maths. Adelaide: National Centre for Vocational Education Research.

Turner PM, Van Tyne M, Hyde S and Mulraney J (1995) Partnerships and pathways. Collaborative regional economic and social development through youth. Adelaide: Department of Technical and Further Education.

Vo CD (1996) When the walls break down. Vocational Education Journal, vol 1, no 4, pp 18-23.

Wacker GB (1995) Enhancing career development for all students through tech prep/school-to-work. NASSP Bulletin, vol 79, no 575, pp 1-9.

Wyatt F and Rush-Matthews D (1996) Small enterprise training report. Vocational Education, Employment and Training Board (VEET) and South Australian Employers Chamber of Commerce and Industry (SAECCI) Joint Project.

Contact details

James Mulraney
Principal, Seaview High School
Seacombe Road
Seacombe Heights
South Australia 5047

Peter Turner
Curriculum Policy Directorate
Department of Education, Training and Employment
Flinders Street, Adelaide
South Australia 5000

Improving completion rates for TAFE students

Judith Uren

Central TAFE, Perth

Overview

In recent years there has been a shift in policy by national and state governments from an activity-based reporting system to an output-based reporting system. To the vocational education and training (VET) sector this has meant the identification of a number of key performance measures relating to efficiency, effectiveness and quality. These measures are collected by the states and reported to the Australian National Training Authority (ANTA) on an annual basis.

These measures include:

- Participation rates
- Graduate destination
- Employer satisfaction
- Actual and planned student load
- Module load completion rate
- Unit costs.

One key performance measure - module load completion rate (MLCR) - is of particular interest to technical and further education (TAFE) colleges because in some states this indicator is linked to funding. The MLCR is the proportion of hours of delivery which result in a successful module completion. It is used as a surrogate measure of output efficiency.

MLCR or its variant MLOR[1] is a business compliance indicator under Central TAFE's resource agreement with the Western Australian Department of Training and Employment. MLOR is linked to funding, and TAFE colleges in Western Australia have specific MLOR targets to achieve. Failure to meet these targets results in a refund to the department. It is therefore critical for Central TAFE to gain an understanding of the factors affecting student outcomes and explore possible strategies that will assist in increasing student completion rates not just for the College, but also for the students themselves.

To better understand the factors that affect MLCR, the Research Unit at Central TAFE subcontracted the statistical expertise at the National Centre for Vocational Education Research (NCVER). Using AVETMISS data, NCVER conducted a multivariate analysis of Central TAFE module load completion rates (National Centre for Vocational Education Research 2000) to determine what factors affected MLCR at Central TAFE and which of these factors were of greater importance.

Summary of multivariate analysis

In order to make the analysis more accessible, the factors which might predict completion rates of students were broadly identified as falling into three groups. These were:

- Student factors (for example, age, gender of student, country of origin, mode of participation, highest prior education, length of time since leaving school, first time VET, place of residence, socioeconomic level etc).
- College and delivery factors (for example, college size, college location, teacher-directed or self-paced or other delivery mode, number of students enrolled in module).
- Course and program factors (for example, AQF course level and ANTA group, length of module).

Results - single factors and pairs of factors

At the simplest level, very low values of MLCR were associated with:

- Indigenous students; and
- Students undertaking adult literacy and English as a second language (ESL) courses.

This result was supported by a similar study of all Western Australian TAFE Colleges also conducted by NCVER in 1999.[2]

The analysis also found lower values of MLCR for:

- Younger students and males - gender and age have a joint effect;
- Students whose highest education level is year 11 or lower, or is unknown;
- Students studying part-time or as trainees;
- Students with missing demographic information - a finding which should not be treated as a trivial one. Missing data precluded a consideration of the effects of main language spoken at home and country of birth for Central College;
- School leavers, students still at school and students undertaking VET for the first time;
- Students undertaking modules in self-paced or correspondence delivery modes; and
- Students undertaking longer courses with many modules, and modules with a large number of enrolments at the campus (these effects are weaker but still observable).

The data also highlighted that a large number of students completed less than 5% of the module hours in which they enrolled. These students comprised about 21% of the total in the study group. (Just over 40% of the students completed more than 95% of the hours undertaken.)

For the students who successfully completed less than 5% of the hours undertaken in the study group, the following characteristics were noted:

- They are more likely to be starting VET for the first time;
- They are more likely to be studying part-time or as trainees;
- They are more likely to have unknown demographic data;
- They are more likely to be young males.

Results of classification and regression tree (CART) analyses

A much more sophisticated series of investigations were carried out to attempt to discover more complete patterns of explanation and to rank factors in order of importance. The investigation showed that:

- Highest education level (ranging from year 9 or lower to degree or higher) is the most important factor, followed by mode of participation (apprentice, trainee, full-time and part-time);
- Course level and industry group are generally of medium importance as predictors;
- Other factors (gender, delivery mode, module length, year started in VET) also predicted low module completion.

The overall conclusion is that student factors are slightly more important than program or delivery factors, with:

- Full-time students and apprentices (the latter a very small group at Central College) having a positive effect on MLCR; and
- Part-time students and those with highest education level of year 9 or lower or unknown (particularly the latter) having a negative effect on MLCR.

The purpose of the current research is to build on these findings and examine more closely the individual student, institutional and environmental factors influencing student non-completions and to determine what strategies Central TAFE might introduce in order to improve student retention.

Improving student retention at central TAFE

Research approach

The multivariate analysis found that, although Central TAFE had an overall module completion rate of 72%, very few students (approximately 11% of students) actually achieved this. The College rate of 72% was a function of averaging, with just over 40% of students completing more than 95% of the hours in which they enrolled and 21% completing less than 5% of the hours in which they enrolled (National Centre for Vocational Education Research 2000, p 3). Consequently, in order to fully understand the factors which might predict student non-completions, the current research focused on the characteristics of students with very low individual module load completion rates. A sample of students who had completed less than 5% of the module hours in which they enrolled in semester 1 of 2000 were selected and qualitative research was undertaken using a combination of focus groups and in-depth telephone interviews. The various focus groups were stratified according to gender, age, mode of participation and highest level of secondary qualification. Students who were from culturally and linguistically diverse (CALD) backgrounds were interviewed individually via telephone.

Eight focus groups were conducted with between 8 and 10 participants. A further 15 individual telephone interviews were conducted.

Simultaneous to this, a self-completion survey was sent to all students enrolled in semester II at Central TAFE who formally withdrew. A total of 338 surveys were issued and 103 student surveys were returned, netting a response rate of 30%. An analysis of the results of this survey is included in this report.

The research questions

What other factors affect MLCR?
Which of these factors are of greater importance?
What strategies can Central TAFE implement to increase the retention rates of students?

In 2000 the Department of Education, Training and Youth Affairs commissioned a comprehensive literature review on non-completions in VET and higher education (HE) (McInnis et al 2000).[3] The authors found that there were relatively clear themes emerging from the literature about the reasons why students discontinue their studies. The authors also noted that there is rarely any single factor or event which will result in a student discontinuing her/his course of study, but more often a combination of reasons will lead to this decision. These reasons are categorised as:

- problems with employment;
- problems with the course;
- health and chance events;
- institutional factors;
- financial problems; and
- family and other commitments.

Focus group questions, telephone interview questions and survey items were developed around these themes.

Key findings of the focus group sessions and telephone interviews

The basic structure of focus group questions were to: firstly, understand why students chose Central TAFE and the specific course undertaken; and secondly, to discuss each potential reason for discontinuation and how it may or may not have impacted on their final decision to discontinue their studies.

To maintain consistency, similar sets of questions were asked of participants in the in-depth interviews and participants' responses were recorded verbatim, wherever possible, by the author during the interview.

Choice of institution and course

The literature review by McInnis et al (2000) identified a number of studies on student non-completion that indicated an association between non-completion or withdrawal and doubt about career choice.

The primary reasons why focus group participants had chosen to study at Central TAFE were related to distance and course availability. Several participants indicated that Central TAFE was the only college that offered the specific course they wished to enrol in. The extent to which students investigated the content and suitability of their course varied. Younger participants, particularly young men, selected the course by its name alone, whereas older participants undertook more advanced decision-making processes. This is consistent with findings by Pascarella and Terenzini (1991), who suggest that there is a clear relationship between age and more advanced level of career decision making. (Note that the selection of the course is strongly correlated with career choice.)

Clearly for some participants, poor course selection and inappropriate reasons for choosing to study at Central TAFE influenced their final decision to withdraw. For these participants, the contrast between their expectations of Central TAFE and their course of study, and the reality they experienced during their first few weeks of attendance, was such that they decided to drop out. Typical responses included:

> I wanted to be a builder so I did Building Studies that was really for guys who wanted to register as a builder, but I didn't know that, no-one told me.
>
> My career adviser at school said I would be good at Conveyancing, it was really boring not what I thought at all, so I dropped out. (young female)

Course-specific issues (quality of teaching experience, choice of study, relevance of program for career plans, work load, academic progress, expectations not met)

Yorke (1999), in his study of undergraduate non-completions in higher education in England, noted that the impact of a poor quality student experience was a key feature of decisions to discontinue studying. The second series of questions revolved around these issues: quality of teaching experience, choice of study, academic progress, course content etc.

The quality of teaching is of particular concern to Central TAFE and an obvious area in which to focus for improvement.

Overall there was a clear distinction between the expectations that younger and older participants had of their specific course of study at Central TAFE. Generally younger participants were more likely to be critical of their lecturers' preparedness for classes. Older participants tended to be critical of their lecturers' style of teaching and the way in which their course was delivered. The participants' feedback overall indicated that there is a large variation in the quality of interaction participants had with lecturers and other staff.

Participants who had been attending a course of study part-time, at Central TAFE, were more likely to be critical of the supportiveness of staff other than their lecturers. It is interesting to note that no other participants specifically commented on staff other than their lecturers, in a negative or positive sense. It seems part-time students were more likely than full-time students to notice the lack of support by staff other than lecturing staff.

Generally, participants perceived the amount of work in their course of study as acceptable. More participants had problems with the course content not living up to their expectations or being more difficult than they originally thought it would be. Those participants who found the course workload did not meet their expectations, in terms of the amount and content of the course work, were more likely to be in the younger age categories and/or from a CALD background.

Participants studying part-time were particularly critical of the speed in which the work was covered for each class. They perceived they were not getting quality time with their lecturers and value for money from the course when compared to students studying a full-time load.

> Once a week was not enough time. We had a lot to do in the time. Need to give more time to do learning, class time goes by quickly. [Accounting]
>
> Yes [more than expected], the out of class workload definitely. It was too fast, lots to cover in each class. [Multimedia]

Impact of personal issues (health, financial, family commitments)

The literature review (McInnis et al 2000) indicates that separating personal issues out from other issues can be misleading, as it is unusual for students to cite only one reason for their discontinuation, and it is often difficult to determine where institutional responsibility lies. McInnis and associates use the following example to demonstrate this;

> making the wrong course choices may be attributed to the poor quality of information provided to prospective students, or lack of career counselling. On the other hand, students can simply ignore expert advice … (p 33)

The next series of questions in the focus groups served to explore personal issues associated with health, peer influence, family/work commitments and financial issues.

From the focus groups it became clear that personal issues influenced students' ability and motivation to continue studying.

For most participants, family and friends were a minor distraction and more of a support than a burden. However, for younger participants, particularly young men, friends and even peers from their course of study had a negative impact on their attendance. The following comments, all made by younger participants, illustrate this point.

> I had 15 friends all doing a different class. I had a 4 hour break but they had a 2 hour, and I would drag them to the pub.
>
> My family was supportive but my friends were always saying skip class, see a movie. We were all studying the same course.
>
> I'm 17, obviously I would rather have fun than study, I wasn't going to say no.

A few participants also admitted that family commitments had impacted on their ability to focus on their course of study. This was particularly the case with part-time and older participants. They commented:

> You would work all day, have the course happening and you need to spend time with it, and you have other commitments like sport and your family. You are just running out of time and need 20 more hours a week to make that happen.

The next series of questions related to participants' financial circumstances and work commitments. Responses here varied considerably, and it become clear that different participants had different socioeconomic backgrounds. Most younger participants did not work while they were studying and received assistance from the government and/or their families. The following comments made by younger participants illustrate this.

> It's hard for people who are independent and don't live at home and have to support themselves. The only way you can get through it is if your parents pay for it or if the government funds you but it's still not enough.

Overall, it seemed older participants, and/or those enrolled part-time in their course of study, were more likely to drop their studies due to financial strain, work commitments or both.

The most common concern for participants with regard to finances was the lack of information about additional materials required for their course of study and the cost of purchasing these. Some participants did not feel the cost of the course was particularly high but they did have some reservations about where their fees went, as they had experienced situations where equipment and materials were lacking. Participants indicated that they wanted to know the full cost of their course up front.

The majority of participants worked in some capacity. Of these participants, those working in full-time positions were more likely to have their work commitments clash with their study commitments. Further, some participants from CALD backgrounds indicated they worked long hours prior to attending their classes. The following comments made by these participants demonstrated this.

> I had two jobs then. One early in morning and then another job after. Sometimes I had 13 hours a day. It was very tiring and sometimes it was hard to work in class.

Participants with children were more likely to choose their work over study, as obviously they needed to financially support their family. Interestingly, most working participants had not informed their employer about their studies at Central TAFE.

Few working participants were in professions or jobs that were directly related to their studies. In fact, most working participants had jobs which were not at all related to their Central TAFE studies, and their reasons for doing the course of study was to change their career.

Institutional factors (student services, campus environment)

Work by Anderson (1999) highlights the role performed by student services in facilitating and enhancing student participation and retention in TAFE programs. Although Anderson also makes it clear that there is no single 'client perspective' on student services and amenities, it is interesting to examine the impact these services had on the participants in the focus groups.

Information gathered relating to satisfaction with the student services overall was limited. Several participants acknowledged that they had not been at Central TAFE long enough to comment on the overall student services. Others indicated they felt all their needs were taken into account. Of the few participants who could provide some feedback, this is typical of the comments.

> It seems like there's far too many people crammed into classrooms, I would have been struggling to find a seat. I think there's about two and a half times the number there should be in each class. But they said it would have been okay the next semester because it would go down because people drop out.

In terms of involvement in 'student life', this was very much a full-time student issue. Participants who had been enrolled part time did not expect or even want to be involved in the student life on campus, but simply attended their classes and went home again.

From the general discussion on Central TAFE's physical surroundings, the focus moved on to orientating oneself around the campus. Once again, there was a mixed reaction in relation to finding classrooms and service facilities at Central TAFE campuses.

Orientation students to the College campus was a rare event for participants, with only a very few students either aware of or participating in an orientation program. Whilst this issue wasn't critical to students, full-time students indicated that it would be a useful exercise and assist with 'connecting' with the campus and college and alleviate considerable frustration at having to ask for help from staff and students.

Participants were also asked whether they thought about seeking advice from a lecturer/administrative staff member or student counsellor when they were considering discontinuing their course. Young females were not averse to talking to someone; many thought it would have been a good idea. Young male participants never considered seeking advice. They just left.

> [Hesitantly] It didn't really cost me that much to walk away. (young male)
>
> Yes, that would have been good. A lot of them [young students] were tossing and turning about what they should do with their lives, they could use those services. (Older female)

Telephone interview participants were more candid in their responses and made the following comments.

> No, I didn't know who to go to. I didn't feel comfortable with them [lecturers]. (CALD female)
>
> No, I didn't. I just think about it myself. Can I do it, if I work during the daytime? Forget it! I don't pick up the book, hard to find the time to study and with class only once a week I forget. When I work all day I am so tired and it is very difficult to adjust time, you know? (CALD male)

Factors influencing final decision to withdraw

Participants were asked individually to rank the importance of the specific issues discussed in the focus groups regarding their final reason for withdrawal. Participants rated the variables on a scale of 1-10, where 1 was the greatest influence and 10 the least influence.

(It should be noted that the sample size is small (n=83) and therefore only indicative.)

- Over a quarter (29%) of participants rated 'lack of motivation' as '1' and overall this was the variable considered to be of highest importance when compared to the ratings for other variables. Motivation was influenced by other factors which are listed below.
- 'Course content' (26%) and 'financial circumstances' (19%) were the next highest.
- The variable which overall received a rating of the lowest importance was 'TAFE Campus environment'.

It appears from the focus group discussions that the primary reason for participants' withdrawal from Central TAFE was declining personal motivation and lessened commitment to class attendance and to completing their course of study. The factors that influenced personal motivation varied considerably between participants.

In general, younger participants were affected by the gap between their expectations and the reality of attending the course as well as a lack of clarity in terms of their personal goals. For participants from a CALD background, factors such as work commitments and/or financial strain lead to their final withdrawal. These participants also had unclear goals.

Further, a few participants from CALD backgrounds could not keep up with their course of study as they found the language hard to grasp and they quickly fell behind.

Finally, part-time participants commonly commented on their dissatisfaction with their course of study, the content and way it was taught. However, of all the subgroups in the research project, part-time participants were the most varied in relation to their final reasons for withdrawing from Central TAFE.

To complete the focus group session, students were asked about how they indicated to the College they had withdrawn. These series of questions would assist the College in determining the warning signs for which it should be alert, in order to initiate intervention strategies.

The type of withdrawal participants underwent were equally divided into informal and formal withdrawal. That is, some participants had just stopped going to their classes, whilst others officially withdrew as soon as they had decided. Others had stopped going for quite some time and had then decided to complete the withdrawal forms. The following comments illustrate the types of withdrawal participants made from Central TAFE.

> I spoke to someone they said if you're not happy and can't keep up then you have to repeat. With that attitude I left.
>
> I started skipping classes and thought I may as well withdraw to get my money back.
>
> I consciously withdrew, kept thinking of going back part-time but I forgot to re-enrol. I just decided, oh well. I wasn't passing anyway so I figured I may as well not re-enrol.
>
> Yeah, I went in and asked what to do. They said 'fill this out' and then gave me half my money back.
>
> No I just didn't turn up. I hope I didn't cause any problems.
>
> I stopped going and then filled in a form eventually.
>
> Just stopped going. Well I had missed a few so it became easier to just keep missing them.
>
> I was thinking about it for about a week. Then I went and filled in the forms.
>
> At the beginning I just stopped but then I went in to withdraw, to make it official.

The majority of participants still had plans to study again at some point in the near future and many of the younger participants had actually enrolled in another course. Those participants who were now working full-time acknowledged that they may continue studying. Participants clearly specified they would use the benefit of hindsight if they did go back, making sure they were more proactive about their studies and how it would fit into their everyday lives. Several younger participants acknowledged they would be more mature when they studied next time and they would have clearer objectives in mind. For a couple of young participants, their experience at Central TAFE had made them realise they required more secondary school education or that they would prefer to study at university.

Key findings of the survey of withdrawing students

The focus group and telephone interviews focused on the specific sample of students who had poor module completion rates – ie completed less than 5% of the modules in which they had enrolled in semester 1, 2000. It was also decided to examine the reasons for students' formal withdrawal in semester 2 as a comparison. A self-completion questionnaire was sent to students within one week of formally withdrawing from their course of study. 383 students formally withdrew from Central TAFE during semester 2, 2000. All of these former students were sent the self-completion questionnaire/survey. A total of 103 surveys were returned, with a response rate of 26%.

The survey comprised of a series of statements around these key themes:

- choice of study and career plans
- the teaching experience, content and workload
- equipment and facilities
- student services
- finances
- health, transport difficulties.

Withdrawing students were asked to rate each statement on a scale of 1-3, to indicate the extent to which the statement reflected their reasons for leaving. A rating of 1 indicated that the statement was not a reason for withdrawing, and a rating of 3 was a major reason for withdrawing.

Students also had the opportunity to identify the single most important reason why they had withdrawn. This component of the survey provided the most insight. All but two respondents answered this question.

Demographics of students who withdrew

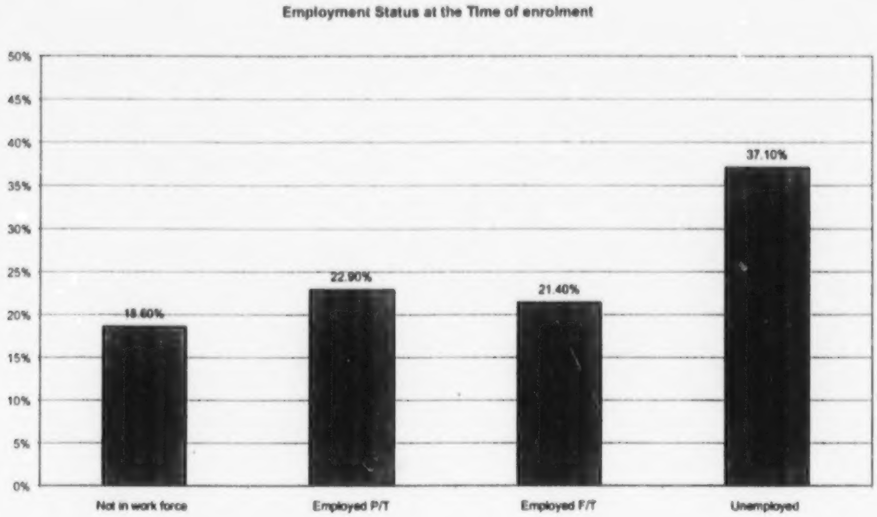
Gender
Female - 59%		Male - 41%

Age
There was a relatively even spread across the age groups between 15 and 50.

Enrolment status
Full-time - 30%		Part-time - 61.6%		External - 5.7%

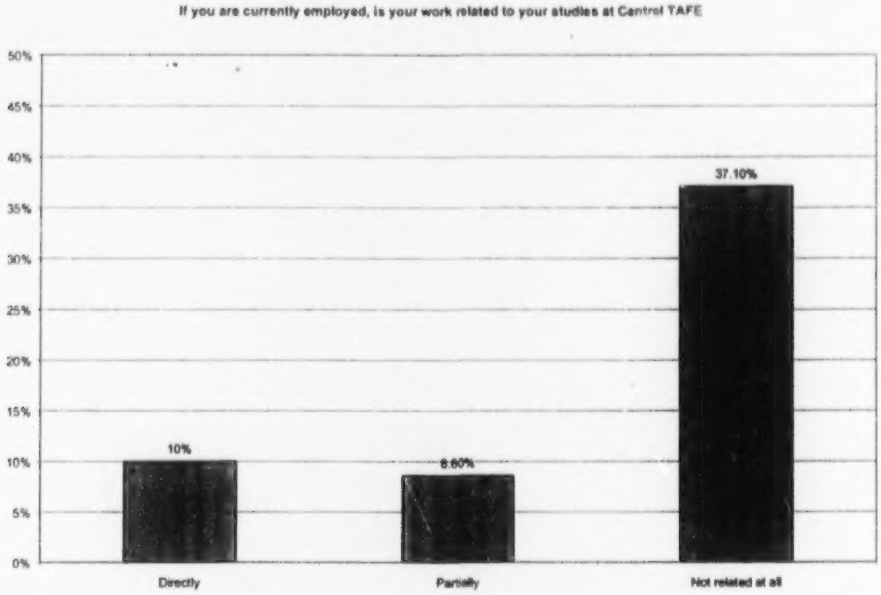
Year of enrolment
87% of students were in their first year and 68.6% of students were in their first semester.

Figure 1: Employment status at time of enrolment



A large proportion of the withdrawing students were unemployed. The majority of these students where in the age group 40 and over. In this age group, 54% of respondents were unemployed, and in the 35-39 age group, 45.5% of respondents were unemployed. The 15-19 age group also had high levels of unemployment (45.8%).

Figure 2: Relationship of area of employment to area of studies



Of those respondents who indicated that they were employed, a high proportion were working in industries not related to their course of study. This was further broken down by age. As expected, the highest proportion of these were in the 15-19 age group (75%). It is reasonable to expect that this age group would be working in either the retail or hospitality industry on a casual basis. However, the age groups 25-29 and 30-35 also had a high proportion of respondents who worked in areas totally unrelated to their studies. This would indicate that they were changing careers.

The major reasons for withdrawing

The following statements received a rating of 'a major reason for withdrawing' by respondents:

- My career plans have changed since I enrolled in the course (course did not live up to my expectations) (18.8%)
- I accepted a place at an alternative training provider (17.2%)
- I accepted a full-time job (15.6%)
- I could not find time to study (11.3%)

- I had difficulty with the workload (11.1%).

The main reasons by age and mode of study

To provide a more meaningful analysis, the data was extracted by age and mode of study. Alternative data extraction using other 'at risk' characteristics was not possible because of the small sample sizes. For example, males made up 41% of the number of students who formally withdrew, however, only a small proportion (24%) of these males completed the survey.

Full-time students age 15-24 (25% of respondents)

The following statements were rated by respondents in this category as the 'major reason' for withdrawal:

- My career plans have changed since I enrolled in the course (course did not live up to my expectations) (33.3%)
- I was bored with my class (delivery and content was not made interesting) (33.3%)
- I accepted a place at an alternative institution (23.8%).

Full-time students age < 25 (14% of respondents)

The following statements were rated by respondents in this category as the 'major reason' for withdrawal:

- I was enrolled in more hours than I could handle (27.3%)
- I ran out of money and had to work more hours (18.2%)
- The adjustment of studying at Central TAFE was more difficult than I expected (18.2%).

Part-time students age 15-24 (15% of respondents)

The following statements were rated by respondents in this category as the 'major reason' for withdrawal:

- I needed a break from study (36.4%)
- I accepted a place at an alternative institution (23.8%)
- My career plans have changed since I enrolled in the course (course did not live up to my expectations) (18.2%).

Part-time students age < 25 (46% of respondents)

The following statements were rated by respondents in this category as the 'major reason' for withdrawal:

- My career plans have changed since I enrolled in the course (course did not live up to my expectations) (19.4%)
- I accepted a full-time job (16.7%)
- I couldn't fit in the study (14.3%)
- I needed a course which offered more flexible ways of learning (13.9%)
- I had difficulty keeping up with the workload (11.1%).

Comments from respondents varied considerably. Younger full-time respondents were in two camps: those who were unsure about 'what they wanted to do' and were bored with classes; and those that wanted to attend an alternative institution. The alternative institution was generally university and not TAFE.

Full-time respondents over 25 years of age generally did not live with their family, therefore issues such as financial hardship and health factors featured strongly in their comments. Other issues such as poor study habits were mentioned. Comments like 'unprepared for the learning battle' summed up the verbatim comments.

Interestingly enough a number of the respondents in the part-time 15-24 age group were also studying at university and found the combined workload was too great. The remainder were finishing off modules they had missed or had withdrawn from previously.

Part-time older respondents had the most varied responses, including: workload, issues with the quality of the teaching experience, inflexibility of the course, poor access to resources to assist with study, not enough information prior to enrolment, and cost of books and materials.

It would appear from the responses to the survey, the focus groups and the telephone interview that the reasons for non-completion are fairly consistent, and therefore strategies to improve student retention would have wide appeal.

Conclusion

Student non-completion at Central TAFE is an issue for the College in terms of student perceptions of Central TAFE as well as from a funding perspective. In the broader Perth marketplace, which includes Central TAFE, reputation and word of mouth influence institutional choice. Negative experiences at Central TAFE which influence students to withdraw from their course of study need to be addressed as a matter of priority.

Since the introduction of the Western Australian Vocational Education and Training Act (1996) (which effectively gave the TAFE colleges autonomy), Central TAFE has embarked on an aggressive marketing campaign to clearly differentiate itself from other TAFE colleges in the marketplace. This campaign has been successful in consistently achieving enrolment targets, particularly in the latter years. However, now the issue of how to retain students is of prime concern. It may even be that Central TAFE's marketing has been too successful and is attracting a market segment of people who are not committed to fulfilling the final goal of completing their course of study or who are unsure about what their aims/goals might be.

Based on the findings of this research project and the available literature, individual motivation or commitment was found to be the primary influence for students withdrawing from their course of study. Further, the findings suggest that an individual's motivation can be influenced by a number of factors. Central TAFE can provide assistance to positively influence student outcomes.

From an institutional or course point of view, it is inevitable that some students will not finish a course of study, for a wide range of possible reasons. Nevertheless, it is the responsibility of an institution to attempt keep non-completion to a minimum.

McInnis et al (2000) dedicate a chapter on reviewing a range of strategies in use to assist both higher education and VET to reduce the number of non-completions. However, they also point out that there has been very little independent and systematic evaluative research undertaken to assess the relative effectiveness of these strategies.

Evidence presented in the literature suggests that the most effective strategies to reduce attrition should be aimed at the recruitment and transition stages. This is not to say that strategies that increase the quality of content and delivery should be neglected. Processes that support the ongoing review of the quality of the learning experience are beneficial for all students.
Based on the research to date on non-completions, the following are suggested strategies that Central TAFE could apply to both *at risk* students and *at risk* courses (at risk courses are those which fail to meet the module completion targets).

- Improve pre-enrolment information to prospective students, which specifically covers:
  - detailed content
  - all fees and charges
  - timetable commitments
  - the number of hours it would take to complete the course
  - assessment requirements
  - mode of delivery
  - career outcomes and prospects
  - option of pre-course counselling with a career counsellor.

- Conduct selection interviews, particularly in course areas where the number of non-completions is high - eg engineering;

- A comprehensive induction (orientation) program for students, which includes an introduction to the College facilities and services as well as the teaching area. It can also include peer group support or a mentoring program;

- A process whereby students who withdraw or leave are followed up with either a telephone interview or a survey (as has been the case with this research);

- A process whereby students who miss a specific number of classes are contacted;

- A process whereby students who miss classes can obtain class lecture notes;

- A transition program for full-time school leavers commencing study at Central TAFE for the first time (this would be of particular benefit for young men); and

- A process of referral to professional help/assistance for students in difficulty.

It is also recommended that in the event that Central TAFE or any other TAFE institute adopts any of the various strategies suggested, a comprehensive review of the strategy be undertaken to ensure that it remains relevant over time. As both this research and the literature has indicated there is never any one reason for withdrawal and as student demographics, program and institute variables change over time, so will the strategies to address student non-completion.

Notes

1. Module Load Output Rate (MLOR) is a variant of MLCR and is used for funding-related purposes only. The formula is identical, except MLOR includes an adjustment of Invalid Module Enrolment and includes employment outcomes, but does not include students with a disability.

2. Multivariate analysis of Western Australian Department of Training module load completion rates by the National Centre for Vocation Education Research (1999).

3. The report by McInnis et al (2000) is a very comprehensive literature review of non-completions in both the VET and HE sectors. No attempt to replicate their work has been made, so readers are referred to this report for further background reading.

References

Anderson D (1999) Student services and amenities in TAFE. Australian and New Zealand Journal of Vocational Education Research, vol 7, no 1.

McInnis C, Hartley R, Polesel J, and Teese R (2000) Non-completion in vocational education and training and higher education - a literature review commissioned by the Department of Education, Training and Youth Affairs, Canberra.

National Centre for Vocational Education Research (1999) Multivariate analysis of WA Department of Training module load completion rates. Adelaide: National Centre for Vocational Education Research.

National Centre for Vocational Education Research (2000) Multivariate analysis of Central TAFE module load completion rates. Adelaide National Centre for Vocational Education Research.

Office of Training and Further Education (now PETE) (1998) Understanding and improving student completion in the state training system. Melbourne.

Pascarella E and Terenzini P (1991) How college affects students: findings and insights from twenty years of research. San Francisco: Jossey-Bass.

Yorke M (1999) Leaving early: undergraduate non-completion in higher education. London: Falmer Press.

Contact details

Judith Uren
Central TAFE,
Perth, Western Australia
Ph: +61 8 9427 1303
Email: urenj@perth.training.gov.au

Abstract

Perceptions of vocational education and learning in Japan and Australia:
a comparative study

Christine Velde
Queensland University of Technology

This session presents an overview of a study which compared the similarities and differences between the VET systems in Japan and Australia. Key national policies in both countries are articulated; a comparison of the similarities and differences between the two systems undertaken; and the perceptions of policymakers and students about their experience of VET illustrated. The education system in Japan has adopted a policy of lifelong learning.

The results point to the need to undertake a long-term approach to establish strategies which will be of benefit to the VET systems in both countries. Viable opportunities for linkage, exchange and joint projects which will enhance vocational learning and vocational competence for Japanese and Australian students and key stakeholders are explored. Traditional and contemporary conceptions of work, labour and competence are discussed. Strategies are suggested to generate inclusive practices from a global perspective. Strategies for collaborative research and practice between the VET systems in Japan and Australia are explored, and new research directions are identified.

Problems to problematics – a journey

Anne Walsh

Training and Development Directorate, New South Wales Dept of Education and Training (TAFE)

The concept of practitioners as researchers is attractive in the vocational education sector. Many vocational teachers are former professionals who value practical knowledge more highly than academic knowledge. However, if the lack of practitioner-based research reported on at conferences is any indication, it would seem that not many vocational education and training (VET) professionals view their work as research.

This paper describes the journey of a former female electrician turned technical and further education (TAFE) teacher turned professional development officer who is now completing her PhD. It also describes the challenges she overcame to make the transition from tradesperson to researcher. It is a personal account of discovery (What? There is more than ONE reality and truth may not be true?). It describes the important relationship between role changes and professional growth. Most importantly, this paper develops the argument that without sustained access to purposeful conversations which promote higher order thinking skills, teachers are unlikely to become able to see their work as problematic and identify their practices as research.

This paper may well be typical of the outcome when a practitioner becomes a researcher – it makes no apology for its lack of references to the academic literature and relies on and celebrates personal experience as a valid form of data.

Being an electrician is a black and white affair. I don't mean that I went to work in hat and tails; I mean that in electrical work there is a clear sense of what is, and what isn't. My work revolved around solving problems that relied on observable or quantifiable data. Answers were right or wrong - sometimes painfully wrong. I certainly didn't identify any interpretive elements in my work. Things simply *were*. Just as I was sure of the absolute nature of my own work, I was sceptical, suspicious and critical of the world of 'academics'. What value was their knowledge that was based not on the fact of experience but on conversations and thinking?

Clearly, during the years when I was contracting as an electrician, my view of the world was in very concrete terms. For me truth was an absolute. I also believed that there was only one version of reality defined by what could be measured and quantified. Anything else was just 'airy fairy nonsense'.

A little over ten years ago I joined TAFE as a teacher of electrical trades. In the first instance I found teaching to be a strange environment. On the one hand I was still dealing with those reliable, consistent facts that had underpinned and been the focus of my work as a tradesperson. Ohm's Law was wonderfully persistent and unchanging. Electrons continued to behave in the same way they had since we became aware of them a century ago. However, students and teaching and learning were not so predictable. What might work with one student or even with a whole class would very likely not work with the next group of teenage apprentices.

Now I do recognise that during their late teenage years, young men are generally unpredictable and totally unfathomable anyway. But put them in an apprenticeship where they suddenly have an income, are distracted by any female within 500 metres, have their driving license and probably their first car, and have reached an age where it's legal for them to drink alcohol - and you're definitely setting them up for a less than ideal learning experience. It's a period in their lives that in my experience places teenage boys in a category parallel but not quite the same as other human beings.

I point this out so that you have some idea of the context in which I was struggling to make the transition from 'tradesperson' to 'teacher'. There is another dimension to that context: my colleagues. Predictably, they were all male. In fact, at the time there was only one other female electrical trades teacher in NSW TAFE and she was located in Broken Hill. I was very much an anomaly. The difference was not only gender. It was also that while I tended to think of myself as a teacher who just happened to have been an electrician, my male counterparts considered themselves to be electricians who taught in TAFE.

The distinction between a teacher with a trades background and a tradesperson who is teaching may not seem significant to you. I didn't realise it would make a difference until I began my tertiary studies. I haven't any concrete proof for those of you who feel more comfortable when things are validated with data. However, in my experience I suggest that a tradesperson who teaches tends to take an instrumental approach to teaching. They seem to think in terms of teacher inputs causing student outputs. They value concrete knowledge gained through experience above constructed knowledge agreed to through social interactions. On the other hand, and again this is only observation from my own experience, I suggest that a teacher with a trades background is more likely to recognise learning as a social experience and that teaching is only one of many elements that affects whether or not a student achieves the desired outcome.

We are now at the main point of this discussion. How does an individual shift from being a *tradesperson who teaches* to a *teacher with a trades background*. Well, I don't know the definitive answer to this question, but I can tell you what helped me.

When I completed my Diploma of Teaching (Technical) with the University of Technology Sydney, I began to teach part time in the Education Faculty of that institution. I have been with them as a part timer for nearly ten years now and have progressed through a Bachelors Degree and Masters studies and am currently working on my Doctorate - all in education. I don't tell you this in an attempt to somehow develop a sense of credibility. Rather, it's part of the way I made the transition to teacher.

You see, one of the unique advantages of being a part-time lecturer is that it places you within a new discourse. Although part timers aren't fully integrated into the social and work dynamics of the faculty, they are to some extent included in the conversations that go on between staff members. In my case I was fortunate enough to work with a group that welcomed critique of their work and enjoyed conversation and debate around the topics and subjects we were teaching.

At first I found this threatening. After all, what could I possibly know compared with the vast knowledge that I attributed to full-time university staff? I was a mere mortal after all. With time however, I began to learn the language – and academics do speak in a language which for a novice was as separatist and excluding of outsiders as I imagine the use of Latin in the Church was. As I became more fluent, I made a discovery that for me was a revelation.

> There is more than one version of reality.
>
> Truth is not singular and not absolute.

Now, before you shake your head and wonder how anyone could not already know these things, consider the background I have just described. In my world, you flicked a switch and the light went on. If it didn't, there was a logical reason why. It was a surprise for me to discover that in the world of teaching the definitions of switch and light were arguable, and there was not necessarily a causal relationship between the operation of one and a change in state of the other.

Once I understood and accepted these two revelations, my shift from tradesperson to teacher became much more obvious. My whole approach to teaching and learning refocused from being concerned with what *I* knew and what *I* did in the classroom to what the students were trying to know and what they were doing in the classroom. Even more important, I began to understand that each student was constructing their own version of reality in different ways and that though some facts were agreed and unquestioned, truth was not. This is not just about learning styles and similar notions. It's about how people perceive the world and what's important to them.

The undergraduate students I worked with were almost all new TAFE teachers. In the lecture room they would (with my encouragement) argue and question what was being presented to them in the literature. We spent much of our time discussing the effect of the contexts in which they taught had on how they interpreted the university subject material and how they would translate and incorporate that knowledge into their teaching practices. I often disagreed with their views but quickly learnt to recognise that they were equally as valid as my own.

In the mid 1990s my primary work shifted from the trades classroom to a professional development role within TAFE. This shift was also instrumental in shaping (or reshaping) my thinking. As I came into contact with a wider cross-section of teaching and related educational staff, I was exposed to a wider range of views on education, teaching and learning, and teachers and learners. I quickly learned that the most appropriate answer to most educational questions began with 'It depends …'. I also learned that when working in a professional development role, it's more important to know the right questions to ask than it is to know the right answers.

So, how did I get to this point and what is relevant to you? Well, I think the pivotal element for me was dialogue. Both as a part-time lecturer and in my professional development role I had lots of opportunities to talk and argue. The people I worked with in each of these contexts exposed me to a wide range of perspectives and viewpoints that my own teaching experiences would not have caused me to consider. In retrospect I was engaging in an ongoing dialogue.

Another important element was research. I continued my own tertiary studies through Bachelors, Masters and now Doctoral research. Some of my colleagues sniggered and told me I was foolish to complete my degrees by research rather than coursework. They wondered why I would deliberately take the hard route. I confess there were times when I thought much the same. However, again with the benefit of hindsight, I can now identify that by rethinking my work problems as problematics I learnt more about teaching and learning than I think I would have otherwise. The research process forced me to unpack, critique and argue my ideologies and practices, and then explain and justify them to my supervisor. In the process I changed my mind a thousand times, contradicted myself constantly and jumped the fence regularly before choosing to sit on it.

As a result I have come to a conclusion. I don't declare it to be truth. It is based on my own experiences - my own version of reality - and is as follows.

I believe that if teachers are engaged in purposeful conversations for sustained periods, and if those conversations are mediated to promote critique, debate and challenging of assumptions underpinning their teaching practices, it is likely that they (the teachers) will begin to think of their teaching and related problems as problematics and will make the shift from *tradesperson who teaches* to *teacher with a trade background*.

Now, what we should do with this conclusion I don't know. For this former electrician it's enough to have reached this point. I suspect that my journey is not yet complete, and perhaps at a future AVETRA gathering I may be able to tell the story of what happened next. Until then…

Contact details

Anne Walsh
Professional Development Consultant
Training and Development Directorate
NSW Dept of Education and Training (TAFE)
Private Bag 3
Ryde NSW 2112
Email: Anne.Walsh@det.nsw.edu.au

Who pays for lifelong learning?

Louise Watson

University of Canberra

The common policy response to global capitalism is to emphasise the importance of lifelong learning in developing a national skill base. The fastest-growing industries appear to be 'knowledge-based' and economic returns are increasingly obtained from a range of intangible inputs, one of which is workers' skills. Economic rewards are flowing to people with high skills who engage in continuous education and training.

Education participation is highest among people who are employed, and a large amount of work-related external training is financed by employers and individual workers. These trends are consistent with the lifelong learning policy agenda that emphasises self-funded participation in both formal and informal learning. But workers in low skilled jobs receive less opportunities and less financial support for participation in training than workers in high skilled jobs. The new economy appears to be generating inequality in the distribution of educational opportunities between people with high skills and people with low skills. This may undermine the OECD's policy goal of achieving lifelong learning *for all*.

Lifelong learning is now on the policy agenda of UNESCO, the OECD and many developed countries, including Australia (Kemp 1999; OECD 1996; Scollay 1999). Work-related learning is an important focus of the lifelong learning policy agenda. The 'lifelong learning policy agenda' is a new way of talking about education and training policy. The lifelong learning policy agenda has emerged over the past five years, since the OECD released its report *Lifelong learning for all* in 1996. This paper discusses the impact of the lifelong learning policy agenda on policy development in Australian education and training, with specific reference to the issue of who pays for lifelong learning.

Why is lifelong learning important?

The lifelong learning policy agenda is based on a belief about the importance of education to productivity in the new economy.

Education is important in the new economy because technological change, particularly in the information and communication technologies (ICT), is transforming both the nature of work and its output. Innovations in computer technology combined with new management techniques have transformed the old manufacturing-based economy into the 'new economy' of the late 20th and early 21st Century. The new economy is a services economy characterised by high flows of global capital. Over 60% of Australian GDP is now generated from services and 74% of jobs are generated by the services sector. The proportion of jobs in manufacturing has halved since 1966 (Australian Bureau of Statistics 1999, 2000).

ICT is believed to have revolutionised economic production in several ways. First, ICT enables firms to operate more efficiently and to create new markets for goods and services. New technology such as the memory chip has dramatically reduced the cost, speed and volume of transactions, particularly in information intensive industries like banking, insurance and finance. These efficiency gains have increased the mobility of capital, which combined with deregulation has contributed to the globalisation of financial markets.

ICT has also increased the 'knowledge-intensity' of industries. 'Knowledge-intensity' is a difficult concept to measure. The OECD measures the knowledge-intensity of industries with data on R&D expenditure and the skill levels of the workforce. Generally a knowledge-intensive industry makes extensive use of both ICT and skilled workers. The financial services sector is an example. But ICT appears to be transforming production in all industries, not only the services sector. For example, computer-based production systems enable 'just-in-time' delivery for a range of manufactured goods. Seventy percent of the value of a car is now attributable to knowledge-based elements such as styling, design and software (Higgins 1999).

In the now global markets for goods and services, economic returns appear to be flowing to industries with high levels of 'intangible' inputs. Intangible inputs include human resources, R&D, intellectual property rights, brands, networks with customers and suppliers, and management structures. Intangible inputs tend to have a high educational component, which now seems critical for wealth creation.

Although some arguments about the role of education in the new economy are contestable (see for example Krugman 1994), there is evidence that educational qualifications are highly valued in the Australian economy:

- Workers with high levels of education attract higher wages. Fifty-three percent of people with higher degrees earn more than $1,000 per week, compared to 20% of people with Bachelors degrees and only 8% of people with basic vocational qualifications (Australian Bureau of Statistics 1998).

- Highly educated workers are more likely to work full-time than people with lower level qualifications. Eighty percent of jobs held by managers and professionals are full-time jobs, whereas less than 50% of jobs in elementary clerical, sales and service occupations and labouring are full-time (Australian Bureau of Statistics 2000).

- People without post-school qualifications are more likely to report being unemployed (11.2%) or not in the labour force (19.6%) compared to people with post-school qualifications – of whom 5.5% are unemployed and 7.3% are not in the labour force (Australian Bureau of Statistics 1998).

While debate will continue about whether education is a 'driver' of growth in the new economy, there is sufficient data to suggest that educational qualifications are highly valued in the Australian workforce. This may be due to the increasing 'knowledge-intensity' of work and to the fact that workers need to be lifelong learners.

If lifelong learning is important to worker productivity in the new economy, the people most likely to succeed in the labour market are those with educational qualifications. Research consistently reveals a strong relationship between levels of formal schooling and later involvement in adult education (Anderson and Darkenwald 1979; Courtney 1992). Australian research indicates a link between level of formal education and participation in adult education. People with university degrees are twice as likely to participate in adult education and training as people with a high school qualification (AAACE 1995). People with higher levels of education are also therefore more likely to participate in work-based training (Australian Bureau of Statistics 1998).

The importance of education in the new economy has led the OECD to embrace lifelong learning as a determinant of long-run economic growth. This is why the policy pronouncements of all Western countries, including Australia, now emphasise the importance of lifelong learning to economic prosperity.

How governments will promote lifelong learning

In 1996, OECD Education Ministers made a commitment to lifelong learning for all. Their communique stated, 'Lifelong learning will be essential for everyone as we move into the 21st Century and has to be made accessible to all' (OECD 1996, p 21).

The OECD Education Ministers' communique identified four strategies for promoting lifelong learning:

1. strengthening foundations for learning throughout life;
2. promoting links between learning and work;
3. rethinking the roles and responsibilities of all partners (individuals, governments and industry) who provide opportunities for learning; and
4. creating incentives for individuals, employers and providers to invest more in lifelong learning (OECD 1996, p 21).

Throughout the communique there is a heavy emphasis on the role of individuals and employers in meeting the cost of lifelong learning. Where governments are mentioned, it is in the context of partnerships with individuals and employers.

> Governments in partnership with learners, their families, public and private providers, teachers, and the social partners are best placed to set the policy framework for developing systems and networks through which individuals learn. (OECD 1996, p 23)

This emphasis on funding partnerships is reflected in the Australian policy documents, which are even more explicit in emphasising the role of individuals in financing learning. The Ministerial Council of the Australian National Training Authority (ANTA) recognises the importance of lifelong learning to maintaining the skill base of the Australian labour force. In its strategic plan, the ANTA Council (Australian National Training Authority 1998) envisages a nation in which:

> Australian workers want, throughout their working life, to update their vocational skills and to acquire new ones. They are active learners and are

> *willing to make a personal contribution* and commitment to their own education and training.
> (my italics)

Australia's review of higher education (West 1998, p 43) defined a lifelong learner as 'a person who takes responsibility for their own learning and *who is prepared to invest "time, money and effort"* in education or training on a continuous basis' (my italics).

In November 1998, the ANTA Ministerial Council commissioned a project called the *National Marketing Strategy for Skills and Lifelong Learning* to explore the attitudes, values and behaviours of employers and the general community about skills and learning. This research has resulted in a series of strategies to encourage employers to increase their investment in training and to assist young people at risk of dropping out of training (Australian National Training Authority 2000b).

A defining characteristic of the lifelong learning policy agenda is that individuals, their employers or industry should contribute to the cost of education and training. Although all the policy documents emphasise the importance of lifelong learning to national economic prosperity, there is scant mention of governments' role in financing it except in terms of a partnership with individuals and industry.

The UK is one of the few countries where the lifelong learning policy agenda has been translated into specific government programs. The partnership concept underpins many of these initiatives. For example, the UK government has introduced a pilot program of 'individual learning accounts' to finance education and training participation among people with lower level qualifications. Although these 'learning accounts' attract some government subsidies, individuals are expected to contribute to the cost of their own training in partnership with employers and government. The explicit strategy of the scheme is to increase the level of commitment to training among people with lower level qualifications and among companies with low relative levels of training expenditure (*The Times Educational Supplement* 2000).

The OECD advocates *universal* participation in lifelong learning policy agenda, but assumes that this will be achieved through motivating individuals and their employers to invest more in education and training activity.

> Ministers call upon private- and public-sector employers and the social partners to respond to the demand for increased investment in human capital, to overcome barriers to the expansion of adult education and training and to further develop active labour market programmes, particularly to combat marginalisation and social exclusion. (OECD 1996, p 24)

To judge the extent to which governments can expect individuals and employers to be motivated to invest in lifelong learning, we need to understand the distribution of education and training opportunities in the workplace. The following section examines the extent to which Australian workers participate in lifelong learning.

The distribution of education and training opportunities

The policy literature on lifelong learning emphasises the high value placed on education and training by industries in the new economy. It could be assumed that because lifelong learning contributes to economic productivity, the market will meet the cost of individuals' investments in education and training - either through higher wages or employer support for continuing education participation. The extent to which this is true depends on where you are placed in the skill hierarchy of the labour market.

Table 1: Employment by occupational group and qualifications, Australia (2000)

Skill level	Occupational groups	Brief description of skills	No. of workers
1	Managers and administrators, professionals	Skill commensurate with a Bachelor degree or higher qualification, or at least 5 years relevant experience	2.3 m
2	Associate professionals	Skill commensurate with an AQF diploma or advanced diploma, or at least 3 years relevant experience	1.1 m
3	Tradespersons and related workers, advanced clerical and service workers	Skill commensurate with an AQF Certificate III or IV, or at least 3 years relevant experience	1.9 m
4	Intermediate clerical, sales and service workers, intermediate production and transport workers	Skill commensurate with an AQF Certificate II or at least 1 year relevant experience	2.9 m
5	Elementary clerical, sales and service workers, labourers and related workers	Skill commensurate with completion of compulsory secondary education or an AQF Certificate I	2.5 m

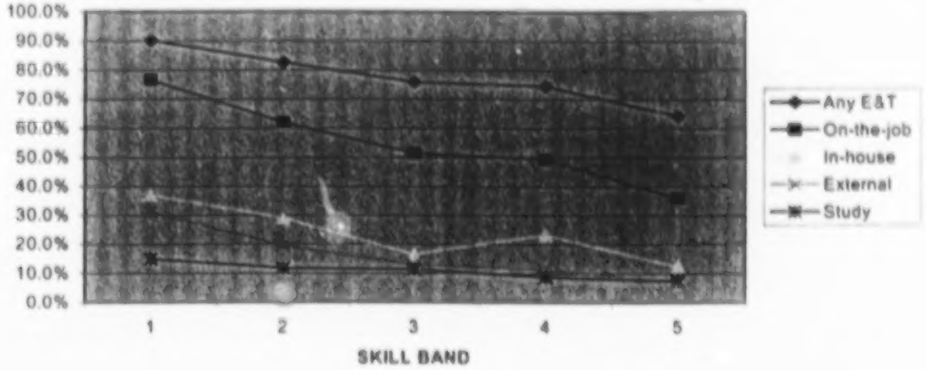
Source: Australian Bureau of Statistics (ABS) Catalogue no 1220.0. Australian Standard Classification of Occupations 1997 (second edition), ABS Catalogue no 6203.0. Labour Force Australia (2000, May).

As shown in Table 1, the Australian Bureau of Statistics reports employment by occupational groups within five bands of skill that are commensurate with educational qualifications and experience. People in skill band 1 are those with the highest educational qualifications – a Bachelors degree or higher. People in skill band 2 have the equivalent of an advanced diploma and people in skill band 3 have trade qualifications at the level of AQF Certificate III or IV. Year 12 graduates or people with AQF level II are in skill band 2. Skill band 5 represents people who have not completed secondary school.

People in skill band 1 occupy 25% of jobs in the Australian economy, whereas 27% of jobs are held by people in skill band 4 and 29% of jobs are in skill band 5. However, a disproportionate share of jobs in skill band 5 are part-time. The ABS reported an average for part-time workers of 16.8 hours per week and an average for full-time workers of 44.4 hours per week. If the numbers of full-time and part-time jobs in each skill category are multiplied by these average hours, the distribution of hours worked is different to the distribution of total jobs. In terms of total hours worked, the highest proportion of working hours (27%) is spent in jobs at skill level 1 and only 16% of employment occurs in the lowest skill band. Skill bands 2, 3 and 4 respectively account for 12, 19 and 26% of total hours worked.

Participation in education and training varies considerably between the five skill bands as illustrated in Figure 1. The data relate to reported participation in any form of education and training during the 12 months prior to May 1997, when the ABS Survey of Education and Training experience was conducted.

Figure 1: Level of worker participation in education and training by skill category, Australia (1997)

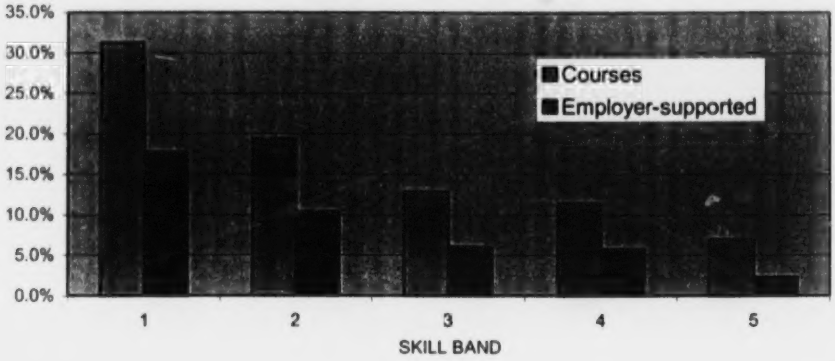


Source: Australian Bureau of Statistics (1998) *Education and Training Experience 1997* (Catalogue no 6278.0).

In the 12 months prior to May 1997, 90% of workers with Bachelors degrees (skill band 1) participated in some type of education or training. In contrast, only 64% of people in the lowest skill band (5) participated in education and training over the same period. The workers most likely to be engaged in any form of education or training are those with university qualifications. People with the lowest level of qualifications are least likely to participate in work-related education and training activities (Australian Bureau of Statistics 1998).

External training courses are a rapidly growing form of work-related training. Almost 20% of workers were engaged in external training courses in 1997, compared to 9% in 1989. As for all forms of education and training, people with university qualifications are more likely to participate in external training courses than people with lower level skills. In the 12 months prior to May 1997, 31% of people in skill band 1 (the university educated) engaged in external training courses, compared to 7% of people employed at skill band 5 (educated to year 10 or AQF level 1). This is shown in Figure 2.

Figure 2: Worker participation in external training courses and level of employer financial support by skill category, Australia (1997)



Source: Australian Bureau of Statistics (1998) *Education and Training Experience 1997* (Catalogue no 6278.0).

The level of employer financial support for participating in external training courses declines according to the worker's level of skill. Among university graduates, employers made a financial contribution towards their participation in external training courses in 57% of cases. In contrast, only one in three workers in the lowest skill band received financial support from their employers towards the cost of their external training courses. In other words, people in the lowest skilled jobs are the least likely to undertake external training courses and when they do, two out of three do not receive any support from their employers (see Figure 2).

In summary, the distribution of all types of education and training opportunities in the workplace favours people with university qualifications over people with lower level skills. People with the lowest level qualifications are the least likely to undertake work-related external training courses. And when they do, they are more likely to finance it themselves.

Conclusion

Structural change in the economy has seen the emergence of human resource skills as an important intangible input to the value-adding process. The fastest growing sectors of the economy employ workers with high levels of skill. This has led to the development of a lifelong learning policy agenda that argues lifelong learning is the key to economic prosperity in the future. The lifelong learning policy agenda assumes that as education is important to worker productivity, industries and employees will be willing to finance the cost of workers' participation in education and training.

The lifelong learning policy agenda emphasises the need to motivate people and their employers to invest more in education and training. But there is a significant difference between the amount of training undertaken by high-skilled and low-skilled workers, and a disparity in the extent to which these groups of individuals attract employer support. People in highly skilled jobs are more likely to participate in continuing education and training than people in low-skilled occupations. People in low-skilled occupations are less likely to receive employer support for their participation in continuing education and training. This contributes to a widening gap in the education and income levels of people with university qualifications and those with lower level skills. This gap is likely to widen further if efforts are not made to increase the participation of groups who are currently under represented in continuing education and training.

The idea that participation in education and training should be financed by individuals and employers - a feature of the lifelong learning policy agenda - is unlikely to address the educational barriers faced by people with low skills. Lifelong learning certainly appears to be linked to economic growth in the new economy. But the market incentives for investing in lifelong learning are not uniform for all workers. The education and training opportunities generated by the new economy flow overwhelmingly to the most educationally advantaged people in the labour market - university graduates. The OECD's policy goal of 'lifelong learning for all' is unlikely to be achieved unless governments actively support education and training participation among people with lower levels of skill.

References

Anderson R E and Darkenwald G G (1979) Participation and persistence in American Adult Education. New York: College Entrance Examination Board, ED181186.

Australian Association for Adult and Community Education (1995) Who are Australia's adult learners? Monograph prepared by John McIntyre and Alastair Crombie for the Australian Association of Adult and Community Education (AAACE) Inc, September.

Australian Bureau of Statistics (1997) Australian Standard Classification of Occupations (second edition). Catalogue no, 1220.0. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (1998) Education and training experience, Australia 1997. Catalogue no 6268.0. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (1999) Australian national accounts. Catalogue no 5204.0. Canberra: Australian Bureau of Statistics.

Australian Bureau of Statistics (2000) Labour force, Australia, May 2000. Catalogue no 6203.0. Canberra Australian Bureau of Statistics.

Australian National Training Authority (1998) A bridge to the future: Australia's National Strategy for Vocational Education and Training, 1998-2003, p 3.

Australian National Training Authority (2000a) ANTA marketing strategy for skills and lifelong learning: market segmentation report, March. Brisbane: Australian National Training Authority.

Australian National Training Authority (2000b) A national strategy for VET - meeting client needs. Report to the ANTA Ministerial Council, June. Brisbane: Australian National Training Authority.

Courtney S (1992) Why adults learn: towards a theory of participation in adult education. London: Routledge.

Higgins R (1999) Address to the CEDA Club function on the knowledge-based economy, 28 October.

Kemp D (1999) Preparing youth for the 21st century: the policy lessons from the past two decades. Paper presented in Washington DC, 23-24 February.

Krugman P (1994) Peddling prosperity. Economic sense and nonsense in the age of diminished expectations. New York: W W Norton and Co.

Organisation for Economic and Cooperative Development (1996) Lifelong learning for all. Paris: Organisation for Economic and Cooperative Development.

Scollay M (1999) The learning revolution: a national perspective. Speech to the Annual Conference of TAFE Directors Australia, Canberra.

The Times Educational Supplement (2000) Learning accounts will not aid poor, May 12.

Contact details:

Louise Watson
Director
Lifelong Learning Network
Division of Communication and Education
University of Canberra
Australian Capital Territory 2601
Ph: 02 6201 5357
Fax: 02 6262 5965
Email: louisew@comedu.canberra.edu.au

Research, policy, and practice: how do they fit together?

A case study on pathways and articulation at Victoria University of Technology

Leesa Wheelahan

Centre for Educational Development and Support, Victoria University of Technology

The relationship between research, policy and practice in tertiary institutions is complex. Policy-makers like linear relationships: first there is research, which develops policy, which in turn directs practice. The 'action research spiral', favoured by reflective practitioners, is similarly staged: reflection, planning, action, observation, then reflection again. The reality is more incoherent, with research, policy and practice muddled together; and the prominence of one or the other is just as often the outcome of institutional political imperatives as of the need to develop grounded policy to underpin practice. Yet, it is possible over time to see the translation of research into policy and practice, and to observe how the latter acts as the impetus for further research.

This paper examines the relationship between research, policy and practice through a case study at Victoria University of Technology. The University introduced a key strategic policy in 1997 that was (and is) predicated on learning pathways and student articulation between its TAFE and higher education sectors.

This paper will use a case study to explore the relationship between research, policy and practice. Victoria University of Technology is a dual-sector university with sizeable TAFE and higher education sectors. In 1997 the University introduced its Personalised Access and Study policy, a policy underpinned by learning pathways between the two sectors. This case study examines the outcomes of pathways from the perspective of the students who have used them, and from teaching staff in both sectors.

While the University has been successful in implementing pathways, there is, nonetheless, a gap between stated policy objectives and outcomes. Examining the policy/practice gap in this case study illustrates the relationship between research, policy and practice. It reveals the complex and interdependent relationship between each; the extent to which they are 'muddled together'; but also how research *can* be demonstrated to translate into practice, if not in the linear and straightforward manner envisaged in policy documents. Key to understanding this relationship is the need to move beyond descriptive research to analytical research, so we can answer the question *why* as well as *what*. Understanding the policy *environment* can lead to the development of more effective implementation strategies, a key theme of this conference.

Personalised Access and Study policy at Victoria University of Technology

Victoria University of Technology implemented the Personalised Access and Study policy at the beginning of 1997 to make education available to, and meet the learning needs of, the University's students and region. VUT is the principal provider of credentialed tertiary education in Melbourne's western region, serving more than 615,000 people (excluding the Adult and Community Education sector). The region is among the most culturally diverse in Australia, with a higher than average proportion of its population from immigrant non-English speaking backgrounds, and with lower than average participation rates in tertiary education. Many of the University's students are the first in their family to have attended tertiary education (technical and further education (TAFE) or higher education).

The University merged with the Western Melbourne Institute of TAFE in July 1998, creating a university with more than 50,000 students, approximately 14 campuses and two sectors roughly equal in size with a high level of complementarity of course offerings. The Personalised Access and Study policy was (and is) predicated on learning pathways and student articulation, which in turn was predicated on transforming the relationship between its TAFE and higher education sectors.

The policy has two components:

- Personalised Access, which seeks to find a place in an accredited course within TAFE or higher education for school-leavers and mature age students at a level commensurate with their academic preparation and vocational aspirations; and
- Personalised Study, which attempts to support student learning through the development of learning pathways and individual student compacts or learning agreements.

Pathways link the two components of the policy because they offer students access to study at a level commensurate with their level of academic readiness, while also providing them with the opportunity to build on success. Pathways remove the spectre of pass/fail, as there are options for students other than being lock-stepped through rigidly constructed courses. If a student does not meet the entry criteria for a particular course, they can enter a learning pathway that supports them to reach the required standards, while *reserving* a place for them in the destination course provided these standards are met. Pathways are available to *all* students within the University, and to *prospective* students from the western region, through the personalised place process. In this way, pathways open access to under-represented groups within Melbourne's western region.

Evaluation in 2000

The University has built an extensive policy framework to support pathways, and, as part of an evaluation undertaken in 2000, interviewed 50 students who articulated from the University's TAFE division in 1999 to a higher education course in 2000. The university also interviewed 27 (mainly) teaching staff from TAFE and higher education. The evaluation also compared the student progress rate and demographic profile of TAFE students commencing higher education courses compared to other students. The evaluation sought to answer two questions:

1. Is student articulation helping students to gain access to higher education, and what student outcomes have resulted as a consequence?
2. Does the University's field of study framework (which the University established to, in part, facilitate the development of pathways) effectively support the development of pathways?

The evaluation focused on *how* pathways were constructed, and how they were experienced by students and staff. Much research focuses on patterns of student movement and student outcomes (Cohen et al 1997; Golding and Vallence 1999; Kinsman 1998; Teese 1997), but there is little on *how* institutional frameworks are put in place and function, and how staff collaborate to facilitate student movement (see Carnegie 2000; Sommerlad et al 1998; and

Wheelahan 2000 for a discussion of some of these issues). Yet it can be argued that the *form* of collaboration directly shapes the way in which pathways are structured, and the student outcomes that result. In other words, the means used to develop pathways may well affect the ends that result.

Examining implementation is an important part of evaluation or policy research. It has the capacity to reveal gaps between policy objectives and outcomes. Merely focusing on policy 'outputs' (for example, the number of students moving between the sectors) reveals nothing about *why* some achieved this result and others did not, *how* they did so, and who is included or excluded. It also tells us little about how policy should be changed or refocused.

What we found

The evaluation found that the overall demographic profile of the University's higher education division has changed since the University introduced its Personalised Access and Study policy in 1997, of which the pathways framework was a key part. The percentage of students from non-traditional and disadvantaged backgrounds commencing degrees in the higher education sector increased, suggesting that the policy has been effective in improving access to higher education for disadvantaged groups. The number of commencing students in higher education from a low socioeconomic background rose from 23.4% in 1997 to 26.4% in 1999, while the number of students from a language other than English (LOTE) background[1] increased from 36.5% to 42.7% over the same period.

This cannot be explained by the actual numbers entering the University's higher education division through the personalised place component of the PAS policy (as these were only several hundred each year). It may be that the PAS policy and the commitment to pathways had symbolic importance to students from equity group backgrounds, thereby encouraging students to apply for entry to higher education (see Golding et al 1996 for a discussion of symbolic importance and pathways).

Student experience of articulation

While the 'seamless' movement of students from one sector to another is a long-standing government policy objective (see Teese 1997), the student experience of articulation shows it has not yet been achieved. Students who were interviewed show that articulating from one sector to another *within the one institution* required a significant degree of support from teaching and administrative staff. Thirty-six (72%) said articulating was 'straight-forward', 'simple', or 'easy', while the remaining 14 (28%) experienced problems that varied in nature and degree.

Half of the group deliberately commenced TAFE studies as a stepping-stone to a specific higher education course, while the remaining half decided to articulate sometime during their TAFE course, and *became aware that they could do so* mainly through information and support provided by teaching staff. The former group, while possessing high levels of knowledge about the *possibility* of articulating, still needed support to successfully do so. It seems that those who found the process straightforward were supported by staff (mainly TAFE teachers, and to a lesser extent, higher education teachers).

The learning experience is contrasted with the 'administrative' (broadly defined) experience. While most students were able to identify differences in the learning environment between

TAFE and higher education, 80% stated that TAFE had been important in preparing them to undertake their higher education studies.

Staff experience of articulation

Of the 27 staff interviewed, 14 were TAFE teachers, 12 were higher education teachers, and one was a key member of administrative staff involved in the Personalised Place component of the PAS policy. All staff were, to a greater or lesser degree, involved in pathways or in the University's field of study approach (the framework that links like TAFE and higher education disciplines to develop pathways and new courses).

Only four of the 27 did not feel student articulation was a useful mechanism to facilitate access by TAFE students to higher education. Half of the remainder felt that articulation was 'useful', and half that it was 'very useful' or 'absolutely useful'. Those who were less fulsome about articulation felt that the mechanisms used to facilitate student articulation could be improved, thereby improving the extent to which students were able to access higher education. That is, they were in favour of the *concept* of articulation, but felt that the *implementation* of mechanisms to support articulation did not adequately operationalise the concept.

The two key factors identified by staff as facilitating student articulation were: collaboration between teaching staff from the two sectors; and the administrative arrangements and policy frameworks that had been put in place to underpin articulation. The three most cited factors that hindered articulation were: the introduction of Training Packages in the VET sector; the need for greater institutional support for, and facilitation of, pathways; and, industrial and political issues.

Policy/practice gap

The policy/practice gap has occurred *despite* a commitment to learning pathways at VUT. The University has invested considerable effort to support students in making the transition and has developed administrative and institutional systems and structures to underpin and *encourage* such movement.

The reasons for the gap can be found by examining policy on two levels. First, we need to examine the broader environment within which institutional policy is made; the national education policy context. Second, we need to understand *how* policy is made. Both these types of research are analysis *of* policy, that is '… the critical examination of existing policy' rather than analysis *for* policy, which refers to '… the informational base upon which policy is constructed' (Berkhout and Wielemans 1999, p 405). Analysis *for* policy is often descriptive. Education policy studies have been criticised for being overly descriptive and insufficiently analytical (Ball 1997; Berkhout and Wielemans 1999; Fritz 1994; Troyna 1994) and, in my view, much VET research fits within this category. It fails to analyse the broader policy framework, the extent to which this reflects particular stakeholder interests, and who wins and loses and why. As Ham and Hill (1984, p 16) explain: 'Policies may be intended to improve social conditions, but this should be part of the object of enquiry rather than an assumption of research'.

An examination of the overall policy environment shows that the factors cited by staff (and experienced by students) as hindering pathways development could be divided into external factors over which the University has no control, and internal factors over which the

University could exercise some control (Wheelahan 2000). However, examination of the internal factors shows that they mostly derive from the existence of separate TAFE and higher education sectors, and while the University could develop 'work-arounds' to overcome these obstacles, the resources and time involved in doing so are considerable. TAFE and higher education are funded by, and report to, different portfolios and different levels of government. Students are funded and counted differently, and they pay different types of fees. Student load is calculated very differently. Teaching staff are covered by different industrial awards and career structures that reinforce the status gap between the two sectors. The two sectors operate with different curriculum models. All this makes it extremely difficult to develop a 'seamless' approach to courses and student movement within the one institution.

Moreover, national education policy has resulted in contradictory policy edicts and imperatives. We have, on the one hand, increasing blurring of the boundaries between TAFE and higher education, reflecting the convergence of vocational and liberal education, and the social and economic imperatives driving lifelong learning policy. On the other hand, we have the gap between the curriculum models in both sectors (Training Packages and competency-based models in TAFE and content-based curriculum models in higher education) which is driving the sectors further apart, accompanied by the 'Balkanisation' of the politics surrounding the sectors, reflected in recent *separate* Senate enquiries into different aspects of each sector.

This broad context provides the backdrop for the development of pathways. The sector in which each course is based is mostly a given. Staff who develop pathways and courses that simultaneously draw on both sectors *must* include the funding, reporting and accountability differences of the two sectors in their thinking. Subjects that are taught in TAFE will incur TAFE fees, while subjects taught in higher education will incur HECS fees. TAFE staff must teach TAFE subjects, and the reverse for subjects taught in higher education. Cross-sectoral teaching can occur, but not easily, and is fraught with all sorts of industrial and political ramifications. Load must be available from both sectors and negotiated simultaneously. Shifting load (and money) between the sectors is a complex process, and in the end is not always possible, given that higher education is funded at a higher level than TAFE. TAFE *must* use Training Packages, even if teaching staff don't think they are appropriate. Higher education *must* accept the learning outcomes based on Training Packages in credit transfer arrangements, particularly in nested awards (awards that are taught in both sectors yet are part of a three-year degree). It is a 'take it or leave it' requirement. This makes teachers in both sectors unhappy, and is a reason why Training Packages have been cited as a key obstacle to the development of pathways.

Staff who want to collaborate in developing pathways or other course types that draw from both sectors must negotiate all these obstacles. This is in a context of declining public funding in both sectors and increased workloads. Yet a key factor cited by staff as facilitating pathways is staff collaboration, however this requires time – time to get to know and trust each other and to develop confidence in the standard and integrity of each other's courses.

These factors have a profound effect on how people behave and what they can do. It shapes courses and curriculum, the sectors students enter and how they move between them, how staff think about their own context and that of the other sector, the cultures and traditions that arise in each, and the work-arounds people have to construct to get around them.

How policy is made

To have a deeper understanding of the policy/practice gap in this case study we need to consider how policy is made. While 'rational-comprehensive' policy development models may be the strategic goal of government (Considine, 1992), the reality is that:

> Most policies are ramshackle, compromise, hit and miss affairs, that are reworked, tinkered with, nuanced and inflected through complex processes of influence, text production, dissemination and, ultimately, re-creation in contexts of practice.
> (Ball 1998)

The PAS policy, as is the case with most institutional policy, was developed from a dynamic exercise of power at national, state and institutional levels; and within the institution, at the central, higher education faculty and TAFE school level, and at departmental level. At each level there exists competing interests and different stake-holder groups. PAS was and is the university's response to help it to meet national and state policy contexts (particularly the need to compete for students in a marketised system in both sectors). The university sought to market and promote the benefits inherent in a dual-sector university, particularly in the possibilities that pathways offer. It was also an attempt to meet the education and training needs of its region. In developing policy the university was required to contend with the conflicting policy imperatives at the national level (eg seamless *and* Training Packages), and the missions that define each sector. *Within* each sector there are conflicting interests at the national and state level: the 'sandstone' universities *versus* the 'Dawkins' or new universities, with both arguing for a bigger slice of resources in relation to the other (particularly research funding); and the competition between public and private providers in the VET sector. In developing PAS the university was required to steer through all these competing pressures and interests. If the policy did not take account of this national context it would have been a marketing disaster.

To this complex brew must be added the history, culture and traditions of the university. PAS and pathways resonated with many in the university community, because all the university's antecedent institutions brought to various mergers a commitment to social justice and equity, and a desire to meet the learning needs of the region. However, not everyone was thrilled. Support for PAS and pathways can be envisaged as a continuum, with champions of the policy at one end and opponents at the other. Dotted along the continuum were people at various points, who changed their views and practice as the policy evolved. PAS required staff to change their practice, and in a large institution there are always groups who feel threatened by that requirement. This is because in 'any real transformation of work, new ways of doing things must sooner or later conflict with established individual and institutional interests structured into the way things were done previously' (Kemmis 2000, p 15). Understanding this helps us to more effectively translate research into practice, because it helps us to understand the *strategies* we need to develop to effect change. Again, if the policy had failed to take the institutional politics into account, it would have been dead from the beginning.

Policy evolves as it is implemented. This is because policy has an impact on how people work and what they can do. Revisions to policy are necessary, as it must be reshaped to meet new needs in light of experience. PAS has gone through several iterations since it was first implemented. The Personalised Place component of the policy has been reshaped to focus mainly on students in the western region, rather than all of Victoria. Policy has developed to reflect a plethora of pathways arrangements; customised, standardised and guaranteed pathways, with variations in each.

Has change occurred?

The experience of developing pathways at VUT shows that the University's Personalised Access and Study policy and the pathways framework has been effective in creating access to tertiary education for students from non-traditional and disadvantaged backgrounds. The profile of the University has changed overall. Students are generally positive of their experience, and most felt supported by the University and teaching staff. The staff interviewed were, on balance, supportive of the pathways framework and saw real benefits accruing to both students and the University. Most staff had ideas as to how the process could be improved. This shows real engagement by staff with the process.

The outcomes reported here show the impact of the broader tertiary education policy framework upon the University in attempting to undertake this work. It also shows how the culture and history of the University and its staff has interacted with and reshaped this framework to create their own work environment. The Personalised Access and Study policy has changed since it was introduced in 1997. There have been several evaluations, internal and external, which have fed back into, and become part of, the policy development process. It is possible to see research translated into policy and practice over time - only it is not linear and sequential. It is all muddled in together.

Conclusion

This paper has examined the relationship between research, policy and practice by using a case study of pathways development at Victoria University of Technology. It was found that each is related and mutually dependent. Understanding how each acts upon the other is an essential condition for understanding how research is translated into practice. Much research in the VET sector is research or analysis *for* policy. This must be located within a broader set of understandings; ones that reveal the political, social, economic and cultural processes that shape the policy environment. This is so at the level of government, peak bodies, institutions and our classrooms. Consequently, analysis *of* policy must not be neglected.

Notes

1. Defined as speaking a language at home that is not English, regardless of whether English is also spoken.

References

Ball S (1997) Policy sociology and critical social research: a personal review of recent education policy and policy research. British Educational Research Journal, vol 23, no 3, pp 257, 18.

Ball S (1998) Big policies/small world: an introduction to international perspectives in education policy. Comparative Education, vol 34, no 2, p 12.

Berkhout S J and Wielemans W (1999) Toward understanding education policy: an integrative approach. Education Policy, vol 13, no 3, pp 402-420.

Carnegie J (2000) Pathways to partnerships: qualification linkages between vocational education and training and higher education. Report and Draft Policy guidelines of the

ANTA/AVCC joint study on credit transfer and articulation between the vocational education and training and higher education sectors.

Cohen R, Lewis D, Stone J and Wood G (1997) University admissions for NSW TAFE graduates, procedures and outcomes for NSW and ACT universities. Canberra: DETYA.

Considine M (1992) Shooting dingoes: public administration in Australia. In M Muetzelfeldt (ed) Society, state and politics in Australia. Leichhardt: Pluto Press.

Fritz J (1994) Implementation research and education policy: practice and prospects. British Journal of Educational Studies, vol XXXXII, no 1, pp 53-69.

Golding B and Vallence K (1999) The university-VET transition. Sydney: Research Centre for Vocational Education and Training, University Technology Sydney.

Golding B, Marginson S and Pascoe R (1996) Changing context, moving skills: generic skills in the context of credit transfer and recognition of prior learning, April. Canberra: National Board of Employment, Education and Training.

Ham C and Hill M (1984) The policy process in the modern capitalist state. Harvester Wheatsheaf: Hertfordshire.

Kemmis S (2000) The right place at the right time: final report of the external evaluation of the Victoria University of Technology Personalised Access and Study Policy. Melbourne: Victoria University of Technology.

Kinsman M (1998) Seamless tertiary education: constraints and possibilities. Paper delivered to the ACER conference, Sunshine Coast, 28-29 May.

Sommerlad E, Duke C and McDonald R (1998) Universities and TAFE: collaboration in the emerging world of "universal higher education". Canberra: Higher Education Council.

Teese R (1997) Ministerial review of the provision of technical and further education in the Melbourne metropolitan area. Paper 6: Seamless education and training. Melbourne.

Troyna B (1994) Critical social research and education policy. British Journal of Educational Studies, vol XXXXII, no 1, pp 70-84.

Wheelahan L (2000) Bridging the divide: developing the institutional structures that most effectively deliver cross-sectoral education and training. Adelaide, South Australia: National Centre for Vocational Education Research.

Contact details

Leesa Wheelahan
Centre for Educational Development and Support
Victoria University of Technology
PO Box 14428
MCMC 8001
Ph: +61 3 9688 4147

Fax: +61 3 9688 4766
Email: Leesa.Wheelahan@vu.edu.au

CHAMBERS.2

chambers.2

http://www.avetra.org.au/PDFs/2
08/28/01 08:08 AM

Abstract

AVETRA Science & Technology Applied Research in TAFE (START) Network

Karen Whittingham

Background

In February 2000, The Department of Industry Science and resources held an Innovation Summit and asked "all" sectors associated with Australian Innovation to participate. The attendance and involvement of the VET sector in innovation and thus at this summit was largely ignored, both from a research involvement perspective and from a Human dimension/education perspective. The national TAFE system has little to no credibility in this area despite the fact that it is an integral part of the innovation system in this country and that it has great involvement in much Applied Research & Development for which it is not recognised.

As we move toward the knowledge based economy the effort of the VET sector will come under more scrutiny in terms of its relationship to science, technology and the commercialisation of innovation.

TAFE researchers in science and technology (and there are many) have no support or communication network in the system and AVETRA could provide such an opportunity to network. This would also expand the relevance of AVETRA both to the VET sector and the University sectors. It would also provide opportunities to expand the membership of AVETRA.

Goals

- To establish a communications network for TAFE staff pursuing applied research and development projects.
- To establish an organisation capable of representing TAFE as a source of Applied Research & Development expertise and an organisation capable of attracting funds from Government Agencies, industry and other sources to support Applied Research & Development projects at TAFE institutions.

Short-term objectives

1. To carry out an inventory of TAFE staff currently involved with Applied Research & Development projects.
2. To identify TAFE staff who are suitably qualified and interested in contributing to Applied Research & Development projects if suitable arrangements are in place.
3. To identify all sources of funding for Applied Research & Development projects carried out at TAFE Institutions.
4. To establish a START Newsletter/web page for TAFE Institutions throughout Australia.
5. To establish central START nodes in each of the states and Northern Territory.

Management of the network

The initial phase of development of the network will be jointly managed by TAFE Industry Partnership Centre and the Central Metropolitan College of TAFE, Business Development Unit, Perth, WA.

Abstract

The missing link? The VET sector and Australia's national innovation system

Karen Whittingham
TAFE NSW Industry Partnership Centre
Fran Ferrier
Monash University
Cliff Trood
TAFE NSW Industry Partnership Centre

In the global economy, innovation is critical to sustaining competitiveness and thus to economic success. Nurturing a vibrant national innovation capability in Australian industries is a key focus of government. Though it is the educational sector with the strongest links to industry, and with the task of training much of Australia's skilled workforce, the Vocational Education and Training (VET) sector has historically had only weak connections with Australia's innovation system. If Australia is to meet the skill needs that arise from research and development, then new and stronger links must be forged.

This paper draws on research into new skill needs that might emerge from the work of the Cooperative Research Centres (CRCs) and the potential to improve and accelerate the VET response to these needs. It illuminates the relationships between VET, the CRCs and industry and identifies some examples of successful practice. It also discusses some barriers that restrict the timely development of new skills through the national VET system.

Abstract

New Zealand's Review of Industry Training Policy: a small step forward or the start of something new?

Paul Williams
Industry Training Federation of New Zealand

New Zealand has embarked on a full review of its vocational education and training policy. The review is being led by a small group of government officials and has so far produced an initial paper that outlines key issues for consultation and resolution. The fundamental question raised is how can the government's role in contributing to social goals be best combined with an effective industry-led strategy?

The New Zealand industry training system is only eight years old, however in this time participation has increased almost four-fold and has extended to industries with little or no history of structured industry training. Problems do exist, however, such as the low participation of 16 – 21 year olds, industries that do not participate, and significant disjunction between industry training and other forms of tertiary education based in institutions.

This paper explores the key challenges for New Zealand VET sector, the role of representative organisations and the importance of research and evaluation as the basis for policy. Specifically, the paper identifies information gaps that require New Zealand to adopt a more research-led policy process and engage more effectively with stakeholders.

Using research to inform business and strategic decisions

Graeme Young

Chisholm Institute of TAFE, Victoria

The paper will outline the use of research techniques in the planning processes of a large metropolitan technical and further education (TAFE) college. It is written on the theme of Practitioners as Researchers and will discuss how applied research is used to support strategic and business planning. It is divided into four sections:

- an outline of the structure of Chisholm Institute's planning and research processes
- the types of research undertaken
- how the research is used to support decision-making
- the benefits and shortcomings of the different types of research.

The Institute

Chisholm Institute is a large multi-campus, multi-disciplinary TAFE institute. It has over 65,000 student enrolments and employs over 2,000 staff. Chisholm has seven metropolitan campuses and two regional campuses throughout the south-east region of Melbourne.

The Institute has five Divisions: three teaching and two service Divisions (see Figure 1). The Strategy Division is responsible for strategic planning and major research functions.

As Figure 2 shows, Chisholm uses a top-down planning process. Senior management sets the aims, objectives and targets. They are framed in a structured and well-defined Institute Strategic Plan.

Figure 1: Management structure

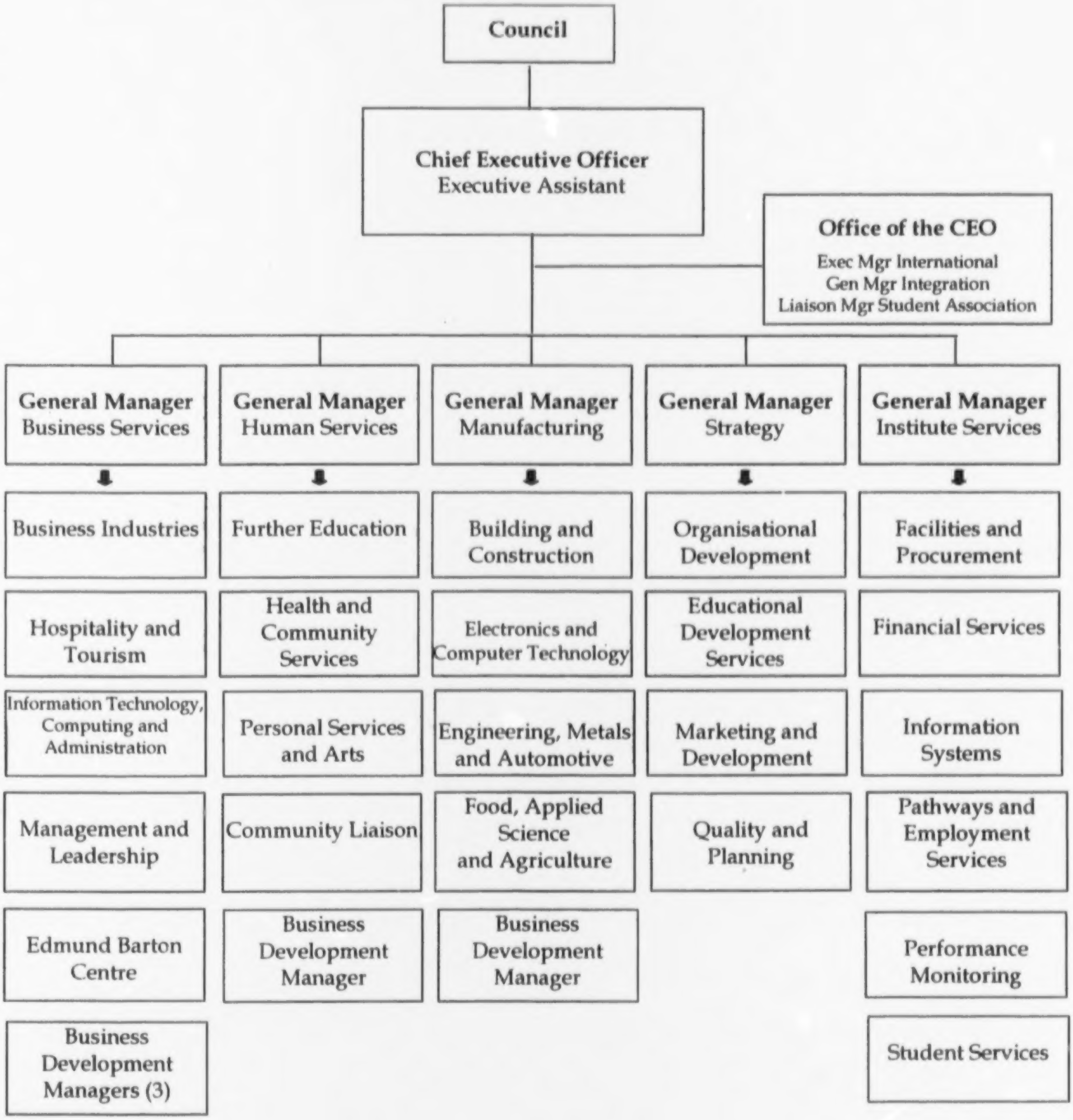
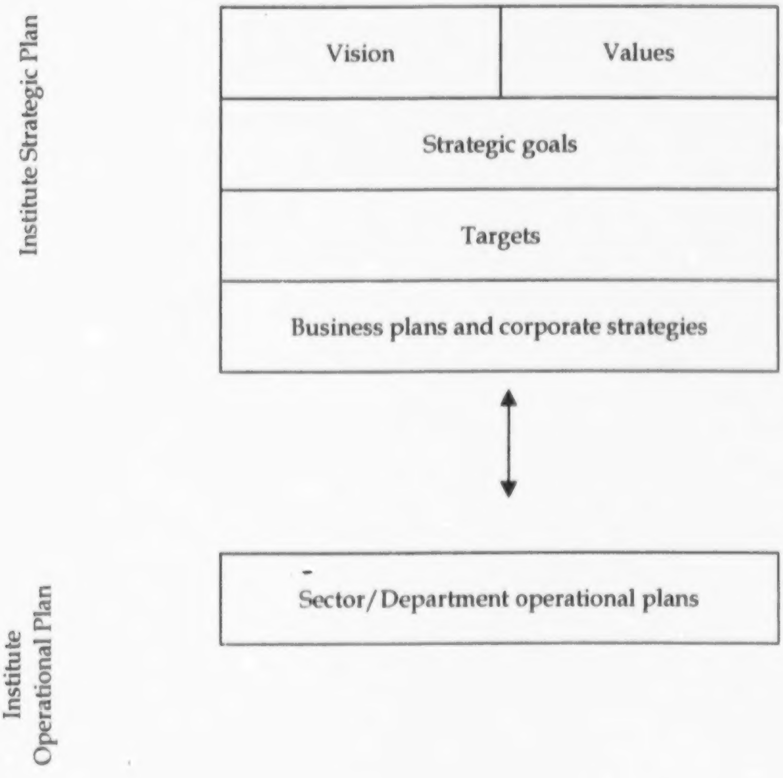

Council
Chief Executive Officer
Executive Assistant
Office of the CEO
Exec Mgr International
Gen Mgr Integration
Liaison Mgr Student Association
General Manager Business Services
General Manager Human Services
General Manager Manufacturing
General Manager Strategy
General Manager Institute Services
Business Industries
Hospitality and Tourism
Information Technology, Computing and Administration
Management and Leadership
Edmund Barton Centre
Business Development Managers (3)
Further Education
Health and Community Services
Personal Services and Arts
Community Liaison
Business Development Manager
Building and Construction
Electronics and Computer Technology
Engineering, Metals and Automotive
Food, Applied Science and Agriculture
Business Development Manager
Organisational Development
Educational Development Services
Marketing and Development
Quality and Planning
Facilities and Procurement
Financial Services
Information Systems
Pathways and Employment Services
Performance Monitoring
Student Services

Figure 2: The Institute planning process


Institute Strategic Plan
Vision
Values
Strategic goals
Targets
Business plans and corporate strategies
Sector/Department operational plans
Institute Operational Plan

The Institute Strategic Plan outlines the opportunities and challenges that the future presents as well as strategic goals and targets to achieve the Institute vision. The Institute Strategic Plan has four strategic goals and identifies a number of Institute strategies underpinning the achievement of the strategic goals and Institute vision. The Strategic Plan is reviewed annually to monitor the level of achievement against targets. Institute targets have been identified for each of the four strategic goals. An annual self-evaluation of these targets is used to verify that the operational activities and data collection processes are aligned with the Institute's strategic priorities.

The Strategic Plan outlines:

- the vision - the desired long term achievements or where it wants to be

- the values - the beliefs that are fundamentally important or what it believes in and promotes
- strategic goals - four broad statements describing the preferred outcomes for it
- strategic targets - statements describing the preferred future directions or outcomes for it
- business plans - a detailed and researched planning document looking forward three years, which includes the outcomes and strategies to support the achievement of key priorities
- operational plans - developed for every area, which identify annual outcomes, measures and strategies and are used to guide operations, measure performance and inform individual achievement plans.

Three departments within the Strategy are involved in research in various capacities.

- Educational Support Department
- Marketing and Development Department
- Quality and Planning Department

The Educational Support Department is responsible for curriculum design, national curriculum projects and the campus library network. The Marketing and Development Department is responsible for market research, feasibility studies and business development projects. The Quality and Planning Department is responsible for the quality system and strategic planning.

The Quality and Planning Department is the focus of the discussion. It consists of a group of nine people who are responsible for strategic planning, the quality system and applied research functions. As with many organisations with a similar structure, the three functions complement each other. Although the three groups within the Quality and Planning Department work on distinct functions, they are interrelated and have a strong emphasis on continuous improvement. The Chisholm Institute Management Framework, the quality system, sets out the framework for the quality management and operational processes and procedures. The Business Plan process sets out the medium term (three years) strategic and business planning processes for operational areas, and the short-term outcomes are outlined in the annual operational plan. The monitoring and evaluation of targets is managed by the applied research functions.

Types of research

There are four areas of research undertaken by staff in the Quality and Planning Department. These are:

- Analysis of internal and external databases
- Evaluation of program and services
- Market research/investigative activities
- Trend monitoring and environmental scanning.

Analysis of internal and external databases

The key source of information for planning and review functions is through the retrieval and analysis of existing databases. These databases of information include data about student enrolments, demographic movements and changes, industry trends, employment rates, economics and sociology. The information is sourced in two ways.

Internal databases

Internal databases are those which Chisholm collects and maintains. They include the current student enrolment database, previous year's student enrolment data, the results from previously conducted internal customer satisfaction surveys, previous program and service evaluation surveys and student recruitment and employment survey data.

External databases

External databases are those sources of information which are collected by external agencies. These include student enrolment data collected by the State authority, the Office of Post Compulsory Education, Training and Employment (OPETE), National student enrolment data collated by the National Centre for Vocational Education and Research (NCVER) and national student destination data such as the Student Outcomes Survey. Other sources include the Victorian Department of Infrastructure (which examines population trends), the Australian Bureau of Statistics, Industry Training Boards and annual planning data collated by OPETE.

For example, the business planning process at Chisholm Institute requires the collection and analysis of current data available. This can include data contained within the Institute or available from external sources.

This data examines the following at the level of sector and industry and across the Institute:

- the characteristics of the students enrolled in a set of courses
- whether the courses met their target
- how much of the market they control
- how big the industry or sector is within Australia; and
- future developments of that industry.

Table 1: Database sources

Internal	External
Student enrolment data	PETE Statewide enrolment data
Results of previous customer surveys	NCVER national enrolment data and graduate destination data
Program and services evaluations	Australian Bureau of Statistics: • Census • Labour Market Data • Business Register
	Industry Training Board Plans
	Department of Infrastructure population statistics and projections

Evaluation of program and services

An important function of the Quality and Planning Department is to evaluate the major programs and services provided by Chisholm to its students and clients, services to staff and to industry and the community.

The primary function of evaluation is to measure the targets outlined in the strategic goals and focus on continuous improvement activities. Figure 3 shows the four strategic goals articulated in the Institute Strategic Plan. An example of the targets is shown in Figure 4. This indicates the expected outcomes that all operational areas are intended to achieve and the particular method used to capture the information.

The targets in the strategic goals are monitored and reported to the Institute Council by the Quality and Planning Department. A number of measures refer to other operational areas, such as Finance, and are reported by those particular areas. The major survey cycle overseen by the Department annually tests and evaluates customer satisfaction measures for the Institute and compares the results with the defined targets.

Figure 3: Strategic goals

Strategic goal 1 - Education

Chisholm Institute will surpass expectations in the delivery of Applied Educational Solutions.

Strategic goal 2 - Learning organisation

Chisholm Institute will provide an environment which continually encourages commitment, involvement and development of its people.

Strategic goal 3 - Financial

Chisholm Institute will be financially strong.

Strategic goal 4 - Structures and systems

Chisholm Institute will create structures and systems which are a catalyst for innovation, measurement and competitive advantage.

Figure 4: Example of targets and method of measurement

Strategic goal 1 Chisholm Institute will surpass expectations in the delivery of applied educational solutions	
Targets	**Method**
100% of customers are satisfied that the programs and services meet their expectations	Student Survey
100% of graduates gain the job of their choice within three months of seeking post-course employment	Graduate Destination Survey
100% of customers would recommend Chisholm Institute	Student Survey, Graduate Survey
75% of withdrawals from courses are due to positive outcomes for the student	Discontinuing Student survey

A number of major surveys are undertaken to measure the strategic targets. They are:

- The Course Evaluation Survey
- The Discontinued Students Survey
- The Staff Survey
- The Employer Survey.

The Course Evaluation Survey is a stratified survey of the current student population attending a campus of Chisholm and enrolled in publicly funded programs. The survey covers student perception of the course structure and organisation, teacher experience and skills and the service provided by support areas such as Library and Student Services. The survey is conducted by getting Cluster Managers to nominate at least two courses for evaluation. The survey is administered in the classroom by administrative staff and not the teacher.

The Discontinued Student Survey is a sample survey of students who have discontinued their course of study within the year. The survey examines the reason why a student leaves and attempts to discover what present activity they are engaged in - whether it is employment, further study or something else.

The Staff Survey is a census survey of all teaching and support staff. It is distributed internally and defined by information from the payroll database. The survey looks at staff perception of working conditions, reward and recognition, leadership and decision-making, workplace culture and communication.

The Employer Survey is a random survey of employers of Chisholm-enrolled apprentices and trainees. The survey covers employer perception of course relevance and service level to employers. It consists of a mail survey to relevant employers.

Internal evaluations

As well as monitoring and measuring selected strategic targets, the Quality and Planning Department provides a consultancy service to Sectors and Departments. This service enables an area to conduct an evaluation of their programs and services.

For example, the Library wanted to find out what services students, staff and the general public use at a campus library of Chisholm Institute and what they think of these services. A Library Users Survey was designed in conjunction with Library personnel and conducted on a quarterly basis. The mail survey was sent to a randomly selected group of students.

Another example is the Traineeship Survey. This survey was designed for workplace students and the aim is to assess their perceptions of the program, the workplace assessor and any support services of Chisholm provided to them.

Market research/investigative activities

Market research and investigative activities such as market testing are carried out by the Quality and Planning Department. Some of these activities are joint projects with the Marketing and Development Department or the Education Development Services Department.

A community survey was conducted in 2000 that looked at community perceptions of TAFE in regional communities, centred on the regional campuses of Chisholm. A Community Survey was designed in conjunction with Marketing and Development personnel to elicit the views of the general community to their attitudes to TAFE and the services that it offers to the broader community.

Another example is a review of the operation of an open-learning centre. The survey was designed in conjunction with a working group of staff and students enrolled at the campus. The review looked at staff and student attitudes to the operation of the centre, including preference for opening hours and an evaluation of current resources available. The results were used to redesign the staffing and resources of the centre.

Trend monitoring/environmental scanning

To monitor major social and economic trends at a state, national and international level, a number of media and other sources are monitored on a regular basis. The focus of the media scan is to identify significant events or reports of research that may have a long-term effect on the operations of Chisholm. The scan looks at the various news sources, including reviewing the main daily newspapers for information about reports that have been released for public distribution. Other sources include public research institutes and private consultancies that release reports about social and economic trends in Australia.

The sources include:

- The daily newspapers (*The Age*, *The Australian*)
- Public research institutes (OPETE, ANTA, NCVER, ABS, NATSEM)
- Private research consultancies (Access Economics, Morgan and Banks, IBIS)
- Regular social and economic periodicals (ABS - Social Trends document, Dept of Infrastructure - Population Forecast Report)
- Internet news websites (CNN, BBC).

Benefits and shortcomings of techniques

The focus of the paper is to examine and review the research techniques used to support business and strategic planning at a large TAFE institute. As Table 2 shows, each technique has its advantages and disadvantages.

Internal databases/external databases

The internal database analysis provides an extremely useful and rich form of research information. It enables the analysis of primary data, such as student enrolment information, which is collected at the time the student completes an enrolment form. This one source can provide a wide range of information on the characteristics of the student population and the types of programs that students enrol in. A set of standard reports can be produced, ranging from a global level of the Institute and 'drill down' through the various levels to a teaching unit or industry sub-group. It is flexible and can look at particular aspects of students in a program, due to the detailed nature of the basic information.

The disadvantage of an internal database is that it is static and can only provide an analysis of the information previously captured. It is limited to the information that is held and is not dynamic or able to examine other issues outside the data that has been captured. It only provides an inside view and will not reveal any information about the general population or people outside of the students enrolled in programs at the Institute. It provides a local view only.

External databases have the advantage of providing a wider picture of the student population at a state or national level and allow comparisons with the local population. This is valuable for benchmarking activities and a market share analysis.

The disadvantage of external databases is that due to the format of the data it may be difficult to drill down to a local level, which can make comparison or benchmarking activities impossible to conduct. A second problem is access to data. Due to confidentiality issues, whether personal or commercial, it may not be possible to gain access to detailed data, such as unit level data (individual records of information). Without detailed data it is not possible to conduct discrete analysis for local analysis or comparison.

Evaluation of programs and services

Evaluations of programs and services provide a measure of success of targets, such as those set out in the Institute Strategic Plan. They are focused and can review a particular issue. Similarly, they can be customised for local use and be conducted at the teaching unit or support unit level.

A disadvantage of evaluations is dependent on their focus and extent, in particular at the Institute level; they may look at surface only and not allow for a deeper investigation of the issue under consideration. This is particularly evident when attempting to sample the entire student population on an issue. A second disadvantage is that the investigation may be limited by time or resource constraints.

Market/investigative research

An advantage of market research and investigative research is the ability to provide answers to an important issue or question. Like internal evaluations, it can be focused and directed to provide information for a particular purpose, although the research may be examining a regional or wider issue.

A disadvantage is related to the resourcing of the activity. It can be costly in time and resources.

Trend/environmental scanning

The advantage of environmental scanning is that it allows access to a range of information sources that can provide a wider view of social and economic issues. Such sources can be used to track national or international trends in education in general and VET in particular.

The disadvantage of scanning is the information obtained may not be applicable to local conditions or may impact on the region or institute.

A final note

A final observation concerns the accessibility and comprehension of the results of the research. As outlined above, applied research at Chisholm is flexible and can be customised for individual projects. It can be commissioned by all levels of the organisation, from senior management down to the manager of a teaching or support unit. It appears that some recipients of the research have difficulty comprehending the outcome of research. It is not certain if this is the fault of the researchers, who may aim the reports at a higher level of comprehension than that of some of the audience. A need to assess the level at which to aim the report of research is one for further investigation and will be followed through with focus group discussions of the major recipients of the reports.

Table 2: Comparison of benefits and shortcomings

	Benefits	**Shortcomings**
Internal databases	Access to local data	Only looking inside, no outside view
	Able to drill down to detailed level, flexible reporting ability	
External databases	Rich source of information at state and national level	Hard to drill down to local level
	Access to wider range of data to enable benchmarking and market share analysis	Limited access to data with some portions not available due to privacy considerations
Evaluations	Provide a performance measure in comparison to set targets	Can only looking at issues on a limited level
	Can be customised for local use	Resources may limit the level and extent of evaluation
Investigative research	Can provide the answer to specific questions of inquiry with some accuracy	Costly and time consuming activity

Scanning	Keep track of trends at regional, national and international level	Gives a picture of the outside world only
General	Flexible and customised service to Chisholm personnel, not just senior management	Level of comprehension and understanding of reports Uncertain if reports are too complicated or aimed at too high a level

Conclusion

As stated in the introductory paragraph, the aim of this paper was to discuss the four major techniques of research used to inform the business and strategic planning process. The techniques have been discussed in the context of a structured and well-defined planning process. Research, in this instance, is not conducted in isolation but is applied to the information needs of a large and widely dispersed TAFE institute. It provides relevant and focused research and analysis and the monitoring of performance of all operational units.

As stated earlier, there is a team of nine people who work in the Quality and Planning Department. Their functions are interrelated, as each group works closely to achieve the aims and outcomes as described in the Institute Strategic Plan. The application of research as discussed is a major contributor to this successful working team and forms an integral part of the functions of the Department.

References

Chisholm Institute of Training and Further Education (1999) 1999-2003 Strategic Plan, Australia.

Chisholm Institute of Training and Further Education (1999) Chisholm Institute Management Framework Australia.

Contact details

Graeme Young
Email: G.Young@chisholm.vic.edu.au

Abstract

National change management and staff development needs in VET

Susan Young, Framing the Future
and
John Mitchell, John Mitchell & Associates

In late 2000, the authors were commissioned by the Australian National Training Authority to undertake research into the change management and staff development required to build the capacity of the Australian vocational education and training sector to support the achievement of a fully integrated national training system. The paper provides a summary of the key findings from the research.

The VET environment is becoming increasingly complex, requiring VET organisations to continually embrace change management and staff development strategies. The environment is characterised by the impact of globalisation and information and communication technologies on industries, enterprises and individuals, with the subsequent demand for new skills and lifelong learning in the workforce.

This changing Australian business and social landscape requires VET providers to conduct staff development to ensure the continuous re-skilling of an ageing and increasingly casual VET workforce.

Change management activities are urgently required because the new business context and the development of a National Training Framework challenges not just the historical structure and processes embedded in many provider organisations, but many beliefs and symbols that are valued by the staff.

Poster 1

The role of the workplace assessor

Jenny Cherry
M. Ed. (Research) candidate
Centre for Research in Education, Equity and Work
University of South Australia

Are you a workplace assessor employed by an RTO? Jenny is an assessor herself, working with New Apprentices in the workplace. She is currently researching the role of the assessor for her Masters thesis. *How do you perceive your role, and how do you practise it?* Do you feel that the regulatory processes that govern the scheme (such as employer incentives, qualifications of assessors, the New Apprenticeship Centres, the State Training Authority, ITABs, etc.) have an influence over your ability to do your job? How do you perceive the influence of the workplace itself on your role?
Please come and discuss! Or email: cherrys@senet.com.au

Poster 2

Call for an integrated model for VET quality

Centre for Research and Learning in Regional Australia
University of Tasmania

The urgent need for an integrated model of quality assurance for VET is one of the major findings in Building Dynamic Learning Communities: Ten Regional Case Studies. This is a report on the second year of CRLRA's four-year longitudinal study. Altogether, 26 findings are presented, based on research whose key question concerns ways of improving VET's effectiveness in meeting stakeholders' needs.

The major finding was that VET outcomes are more effective 'learning communities', communities that are characterised by proactive, collaborative effort. It was found that effective VET must meet the needs of its stakeholders. Other findings include: providers spending scarce resources on competition with other providers rather than on learners and quality training; government funding favouring national or large providers over local ones, and providers tendering for the same courses, reducing diversity in VET courses. Interviewees expressed considerable concerns about poor quality training and learning support and inconsistent assessment in rural and remote sites. Increasing casual and short-term employment conditions point to a need for improved access to professional development. Other major findings concern quality issues, literacy and numeracy, how collaboration enhances VET outcomes, leadership and TAFE's changing role.

Seven drivers of quality VET were identified: industry, enterprises, providers, policy, communities, cultural associations and natural resource management. Industry, enterprises and providers currently receive most resources through strategy and funding. The remainder also require explicit nurturing.

The integrated model of VET quality should be based on the vocational learning experience, shifting the focus from the supply-demand, provider-client model to the provision of VET as an outcome of the local VET dynamic. This would ensure that quality vocational learning is auditable against meeting diverse local vocational learning needs within a framework of national consistency measures through four resource components: resources of the learner; resources related to the learning interactions; human resources, and physical and social infrastructural resources.

Underpinning the integrated quality model are 'learning communities'. CRLRA's ANTA 2001 research program will develop ways of describing and profiling learning communities.

For further information contact CRLRA on 03 6324 3142, or email Deborah.Wagner@utas.edu.au

Poster 3

Falling through the gaps

Marilyn Kell
Greensborough, Victoria

Interviewing nine adults for my doctoral study indicates that because of literacy difficulties some knowledgable, skilled and highly regarded workers do not access the training reflected in the National Framework. Indeed, the feeling is that training modules discriminate against them. For those who have attended workbased literacy classes and obtained certification (e.g. forklift or crane operation) prior to being made redundant, these new skills have failed to gain them new jobs. One who has been required to attend literacy classes provided by an RTO is being taught by a former nurse using a basal entry level approach to literacy instruction.

This situation raises three questions: Is workplace assessment too closely linked to measured literacy? Is the provision of literacy or other workbased modules correctly focussed? How do RTOs demonstrate that they are providing the best modern approaches to training?

Poster 4

The romance and reality of IT for young women

Barbara Rohde
PhD candidate
Research Centre for Gender Studies
University of South Australia

In an era where governments are extolling the virtues of becoming a 'knowledge nation' and the information technology industry declares there is a 'skills shortage' women continue to be under-represented in Information Technology (IT) in both the higher education sector and the workforce. What are the factors that are perpetuating this situation? What choices are young women making and how are their choices being mediated? And what are the implications for the VET system in Australia?

These are some of the key questions that I am exploring as part of my doctoral thesis. During the empirical phase of my research, I interviewed three groups of young women aged between 15 and 25: those currently working in IT who may or may not be accessing training; those studying IT; and those who were currently making choices about training more generally. The results have yielded some surprising findings as well as confirming other research in the area.

Poster 5

The diffusion of policy in contexts of practice: Informal networks and innovative practice

Cliff Trood
Taree, NSW

Significant changes have occurred over the last decade within the Australian Vocational Educational and Training (VET) system. Not least amongst these has been a shift from a predominantly traditional face-to-face classroom model of program delivery to more flexible models informed by the needs of clients. To lead this revolution, in 1991 the Australian Government and State Ministers for Training established the *Flexible Delivery Working Party*. A series of reports followed that sought to develop a policy framework, including a definition of flexible delivery and its principles and characteristics. Despite these efforts, project funding and national staff development initiatives, several difficulties have been experienced in the 'take-up' of flexible delivery; problems that we argue are related to how the dissemination of innovative practice is conceived. Specifically, the literature and research on the diffusion of innovations points to the efficacy of informal social networks in which individuals adopt the new idea as a result of talking with other individuals who have already adopted it (Valente, 1994, p.ix). Following a discussion of these issues, the paper concludes by arguing the need for research of innovative practice transfer within VET in Australia, using qualitative case study in order to develop an in-depth and rich description of the process and facilitate greater understanding of how it works in practice.

Email: clifford.trood@tafensw.edu.au